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ABSTRACT

This publication compiles the findings and conclusions of the 3-year first phase (1980-83) of the Unesco Sub-regional Project for Special Education in Eastern and Southern Africa. It presents the state of the art of special education and prospects for future development in Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Seychelles, Somalia, Swaziland, Uganda, United Republic of Tanzania, Zambia, and Zimbabwe. The book sketches the development of special education services and related social programs in the context of the political, economic, and social environment; considers the administration and work of the recognized special education programs and other educational programs such as vocational training programs; and reviews the staff training provisions available. Five papers are then presented, describing exemplary rehabilitation services for children or adults with special education needs. They include: "A School Agricultural Training Programme: Karatina School for Mentally Handicapped Children" (Wanjiku Chege); "Developing More Effective Teaching Programs for Intellectually Handicapped Children" (S. Templer and B. Galloway); "The Rehabilitation, Training and Employment of Disabled Persons" (Rudolf van Oudheusden); "Family and Parent-Support Programs: The Community-Based Approach" (Caroline Arnold); and "Integration of Handicapped Children in Pre-School and School Education" (J. Cyril Dalais). Includes 32 references. (JDD)

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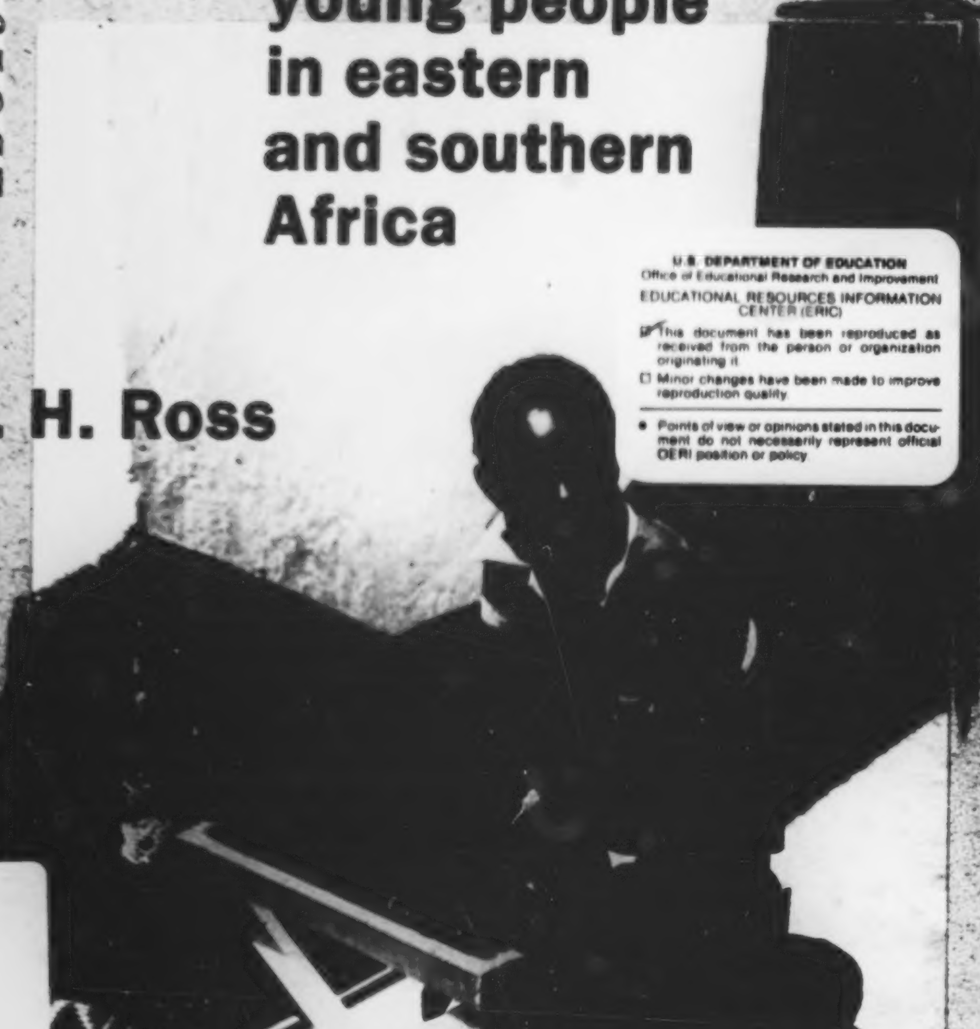
Educating handicapped young people in eastern and southern Africa

D. H. Ross



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Educating handicapped young people in eastern and southern Africa in 1981-83

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D.H. Ross

Unesco

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Preface

Notwithstanding the growing interest and concern witnessed in recent years for the education of handicapped children and young people, action in this domain in developing countries is still extremely limited; the problem merits a magnitude of attention and resources as yet unattained. In an effort to respond to this pressing need and to the shared concern of member states, Unesco, with financial support from the Swedish International Development Authority (SIDA), initiated, in 1980, a technical co-operative project for special education in thirteen countries in eastern and southern Africa (Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Seychelles, Somalia, Swaziland, United Republic of Tanzania, Uganda, Zambia and Zimbabwe).

This publication compiles, in an amplified manner, the findings and conclusions of the three-year first phase (1980-83) of the Unesco Sub-regional Project for Special Education in Eastern and Southern Africa. It is an attempt to present 'the state of the art' of special education in this part of the region, its analysis and prospects for future development.

As manager of the project during its first phase, David H. Ross was asked by Unesco to write this book based on information and experience accumulated by the project staff, through seminars, meetings and discussions. His analysis of the situation has benefited from his long experience as a teacher, school psychologist and senior special education administrator in New Zealand, as well as his experience in Europe, the United States and Africa.

This publication is intended to assist policy-makers, educational planners and special education administrators in their work. It also provides reference material of interest to voluntary and government agencies. It is hoped that they will find it a useful source from which to strengthen and further develop initiatives in this field.

The author is responsible for the choice and the presentation of the facts contained in this book and for the opinions expressed therein, which are not necessarily those of Unesco and do not commit the Organization.

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Foreword

My association with this publication as its principal author followed from my work as the first manager of Unesco's Sub-regional Project for Special Education in Eastern and Southern Africa, from December 1980 to July 1983. During that period, I shared with my colleagues Sven Andersson and Irene Lopez from Sweden and Joseph Kisanji from the United Republic of Tanzania the rewarding task of studying the growth and work of special education services and some related programmes in that large area, the ways in which they might be developed and the potential contributions to their future which Unesco and other helping agencies might offer. I was also privileged to contribute in some ways to their progress through the project's own activities with its associated governments.

Finally, when my contract was completed, I was honoured when Unesco invited me to record the key information which the project had gathered by 1983, to provide some provisional assessments of the existing services for which we had worked and my comments on their possible future. I am particularly pleased that this publication includes five papers describing exemplary programmes focusing on various aspects of rehabilitation services for children or adults with special educational needs. These programmes each merit consideration for adoption elsewhere, modified of course to suit local circumstances.

The chapters that follow reflect the assessments and comments of my colleagues and of many informed persons parents, administrators, staff, pupils and others interested in services for people needing special education or some of its related services. However, their words and ideas come to paper as I understand them, given my own background as a teacher, an educational psychologist and administrator of special education and other school services in New Zealand; and by my links with the early development of special education in several of the South Pacific countries with which New Zealand has close associations.

I wish to thank my professional and administrative colleagues at the project's office and at Unesco's Regional Office for Science and Technology in Africa, both in Nairobi, for their essential contributions to the project and to my own work. I acknowledge also the help I received from colleagues throughout the sub-region, and in particular the officers of the special education unit in the Kenyan Ministry of Basic Education in Nairobi, and the three persons who have helped me greatly by checking parts of my draft manuscript for their accuracy and commenting on their material: Joseph Kisanji, who remained with the Unesco project after my contract ended; Ture Jonsson, the Swedish expert sponsored by SIDA to work with the Zambian government in a full review of its special education programme; and Brother Rudolf Van Oldheusen, now the Royal Commonwealth Society for the Blind representative in eastern Africa and previously reponsible in Malawi and elsewhere in the sub-region for initiating many important educational and related services for blind children and adults. They have helped me to avoid many pitfalls and hopefully to provide a preliminary study which may prove useful now, and offer also a baseline for any further reviews of development in the thirteen countries with which the project was linked.

As practically all the material for this book was gathered by 1983, details on particular services were already past history when I completed the main draft late in 1985. However, the basic social and economic factors which had shaped those services since the Second World War seemed to me still the relevant background for my comments on possible future developments. As these comments are unavoidably general and based on limited information, I rely on my readers to make their own assessments of their relevance and validity for any particular issue.

Finally I record my appreciation of the support and understanding I have received throughout my association with Unesco from Hazel, my wife, who made her own professional contribution to the project's work, and from my colleagues in Paris. I must mention in particular both Lena Saleh and the late Nils-Ivar Sundberg of Unesco's special education section. Nils-Ivar was largely responsible for initiating the project, and helped me to appreciate its particular significance and how its goals might best be met. Since his sudden death in 1981 Lena has supported me first in the field and then in my writing. This book reflects that support, and is partly my tribute to Nils-Ivar's work over many years in the interests of disabled people in all countries.

D. H. Ross

March 1986

Introduction

The Unesco Sub-regional Project for Special Education in Eastern and Southern Africa was established on a grant from SIDA to explore and assess with its associated countries some ways in which a small Unesco team could contribute to the development of special education services for those children who could not make reasonable academic and social progress given in the context of an ordinary school programme, assuming they could obtain it. The project was also interested in the links between these services and the health and welfare programmes which serve handicapped children as well as vocational training services for handicapped persons.

One of the project's tasks was to gather information on the available services and on plans for their development. The data it received from governments, the papers presented at its sub-regional seminars and its own reports are held at Unesco headquarters. These documents and the additional information held at the project's office in Nairobi have been key sources for this publication, but it also draws extensively on inputs from many handicapped students and adults, parents, teachers and administrators at all levels, staff from related professions and organizations, and people throughout the sub-region interested in the project.

This publication offers a study of the development, present work and possible future of the educational services (and where relevant the other social services) which were then available to handicapped young people in the sub-region comprising the thirteen English-using countries with which the project was associated. The mainland countries concerned, roughly from north to south, were Ethiopia, Somalia, Uganda, Kenya, the United Republic of Tanzania, Malawi, Zambia, Zimbabwe, Botswana, Swaziland and Lesotho. They shared with the two Indian Ocean countries, Seychelles and Mauritius, the impact of British political and economic involvement in Africa during the late nineteenth and the twentieth century which left them a common legacy English as an international language. As Unesco's African region comprises all the countries south of the Sahara, the area served by the project is referred to here as a sub-region.

Part One sketches the development of special education services and some related social programmes in the sub-region, up to the early 1980s, in the context of the very considerable political, economic and social changes which each constituent country experienced after the Second World War, including the tremendous expansion of education services, particularly at their first level (primary) stage. It notes reasons why some countries moved more quickly than others in this broad project and considers medium-term needs for special education.

The remaining chapters in this part review briefly the broad range of health, education and related services which the project learnt were operating in 1981-83 and assisting some disabled children and young adults who had special teaching needs. It then considers more fully the administration and work of the recognized special education programmes, some other education programmes which assisted these client groups and the vocational training programmes available to them. The section ends with a review of the training provisions available to these services.

Part Two describes five exemplary programmes in four associated countries. The authors had been directly involved in developing these programmes, which focused on different rehabilitation activities, all relevant to the project's interests. They were all considered effective, efficient and appropriate for the resources and needs of their particular countries though they had all received some external help as innovatory projects. They have been included for two related reasons: they merited careful consideration by planners throughout the sub-region, and perhaps elsewhere, considering ways of improving their own country's services; and they are a necessary counterbalance to the less positive assessments of some other services which are recorded in other chapters and which by themselves could give an unjustifiably negative picture of the quality of the services then available.

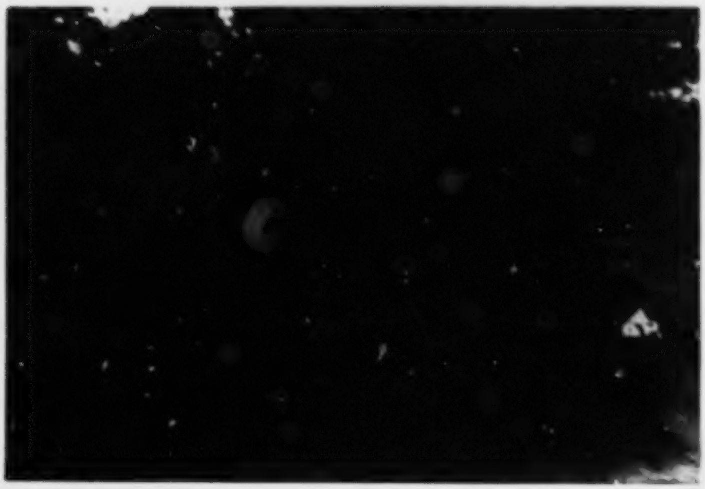
Chapter 10 first reviews what seemed to be the more important inputs to the development of special education and related services, including provisions made for co-ordinating their work. It then considers the outlook for these services over the next decade or so, taking into account both the expectations of those who could influence their development and some possible strategies for using the limited resources likely to be available in the best interests of their many clients.

The book has been planned primarily as a resource for the many people in the sub-region who are involved in some way with the services which their country offers handicapped children who need special education, and often health care, and vocational training as well. The project staff found that many of these people wanted to know more about the services in their own country and were also interested in those in neighbouring countries with comparable needs and resources. Unfortunately, very few countries had a published overall assessment of their own special education services, because nobody had been available to prepare it, and no studies across the whole sub-region or parts of it had been made.

If this preliminary and partial review helps to fill these gaps and contributes towards constructive assessments and planning about special education and related services, it will have justified Unesco's and SIDA's imvestments. If it also provides a baseline and some encouragement for further studies in its field and a useful resource for students, these will be welcome bonuses. Beyond its home area, the book may offer data and insights useful to readers in other developing countries and give those who live in economically wealthier countries a glimpse of the realities of life for most of the world's disabled children and those who serve them.

Some early comments on a few important terms seem desirable. 'Special education' itself is a term which is easy to use in a general way but not so easy to define for a particular study. The definition used here relates it to the realities of each country's regular education system. It has been taken to mean the education needed by people of pre-school age or older who had failed to make, or were considered unlikely to make, acceptable progress in regular pre-school or school programmes because they had learning difficulties which were considered beyond the teaching resources usually available in a regular pre-school or school in their particular school system. They might also need that kind of education for a period longer than that provided for pupils usually attending government school. However, failure to qualify for admission to selective second-level education was not taken by itself as indicating a need for special education. There were also in some countries young people who had learning difficulties of particular kinds for instance, those related to minority ethnic groups or refugees and who were eligible for specific educational help which was not provided through special education services.

The next comment concerns the terms 'handicapped', 'disabled' and 'impaired' three key words in any discussion of special education services. The World Health Organization (WHO, 1980*a*), has given them interrelated definitions (see Annex 2)



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which allot to each its own meaning and also point out the links between an impairment (a loss or abnormal function) and its consequential disabilities (restricted ability to act) and handicaps (limiting of role functions).

This classification is useful in any review of rehabilitation programmes for individuals or for groups of people, and it is a constant reminder to those who use it of the sad consequences of not providing appropriate remedial services for people who have significant impairments or disabilities. However, it can cause difficulties for educators, particularly over the term 'handicapped' which they have used for many years in one of its accepted dictionary meanings of 'disadvantaged', with no necessary implication of the underlying disability or impairment implicit in the WHO definitions. This usage can cause unnecessary misunderstandings if it is used (as it has been) to identify the group of children who are considered for sound educational reasons to need some kind of special education because of their identified learning difficulties. In fact, a significant number of the children who are handicapped in WHO terms do not need special education, and some who require it do not fit clearly within that classification. To minimize these misunderstandings, the WHO usage will be followed whenever possible, but 'handicapped' will sometimes be used in its wider meaning when the context requires it. Children considered to need special education will be described as significantly educationally handicapped or retarded, or in other terms compatible with this general approach.

A wide range of special education services has been developed to cater for young people who need their help. These services will be discussed in three broad groups.

Special schools: boarding and/or day pupils.

Special units: all the special education services which can be associated administratively with an ordinary school. These are usually referred to as special classes, resource centres, annexes, units or clinics. The first four of these terms are often interchangeable in the sub-region. They describe one or more teachers (rarely more than two) providing full-time and sometimes part-time tuition for children needing special education. Some resource centres also offer an advisory service to teachers in ordinary classes in their district and some have an associated hostel for pupils who cannot attend from their own home. Clinics usually offer assessment or part-time tuition, or both.

Pupil support programmes: specialist teachers or other suitable staff offer advice to teachers of ordinary classes on suitable programmes for pupils with special teaching needs and may also provide some of their tuition. The advisory staff will usually serve a particular area, visiting each school either regularly or on request. One aim of these programmes will be to enable some pupils to obtain a suitable education in their own community instead of having to attend a special school or unit elsewhere.

Although this study considers some of the educational and vocational needs of disabled adults, its major focus is on younger people, those up to perhaps 20 years of age who constituted the clients for the special education and related services then available in the sub-region. Those members of this group who were below the age for admission to first-level (primary) education services can be suitably described as pre-school children. Unfortunately, the English language lacks an equally suitable term for the older segment those between about 6 or 7 years of age and, say, 20 years.

For the sake of simplicity and convenience, the study follows a common convention and refers to the members of this older segment as 'children'. In doing so, of course, it does an injustice to the significant number of the total group of educationally handicapped young people who are better described as adolescents or young adults, and it is not an assessment of their social status. A considerable number of them would probably not have been still at school had they not had to wait until they were 8 or 9 years of age or older to enrol in a special school or unit.

Part One
Overview

1

The background for special education in 1981-83

The sub-region studied here is not a geographical, an ethnic, a political or an economic entity. Four of its thirteen countries Seychelles, Mauritius, Lesotho and Swaziland are physically separate from the remaining nine. It covers a total area of nearly five and a half million square kilometres. From Addis Ababa (the capital of Ethiopia) to Gaborone (the capital of Botswana) is some 4,500 kilometres six hours or so by a direct flight, but in fact an overnight journey involving three separate flights. By road, a party of experienced and well-equipped motorists might complete the journey in a week. Some basic demographic and income data on the sub-region are given in Table 1. Mauritius was the only associated country reporting fewer children aged 0-4 years in 1983 than in the 5-9 year group (Unesco, 1983).

Some 99 per cent of the sub-region's people were spread unevenly across its semi-deserts, extensive pastoral and limited good agricultural land, its high inland plateaux, tropical forests and steamy coastal areas. A growing proportion of them lived in cities or large towns, but some 80 per cent or more were living in rural areas. The cities housed wealthy, generally better educated and politically powerful minorities associated with government and business; growing middle classes which served these activities and were generally upwardly mobile; and, except where firm government deterrent action had been taken, large numbers of poor immigrants from the countryside seeking a better life for themselves and their children. Some find it, but many do not.

The rural areas also had a mixed population. The largest group comprised small-scale farmers, many living essentially off their land with little cash income, but some comparatively prosperous. Two smaller but important groups were large-scale farmers, many making good commercial use of their land, and those involved in commerce, industry, administration and social services. A third group, quite sizeable in some countries, included nomadic people living in the least productive areas, often minimally involved in life beyond their own extended community.

All the countries in the sub-region are members of the Organization of African Unity (OAU) and are involved in a variety of continental, regional and smaller groupings related to trade, communications and other matters of shared interest, including sport. Their economic health and progress depends substantially on the trade and financial policies of the developed countries which are their major markets for both exports and imports. Trade within the sub-region is important for some countries, but is hampered by limited industrial development funding, transport difficulties and lack of development.

The economic status of the associated countries has been and remains one important determinant of their potential ability to develop their social services. It is reflected in their ratings by the United Nations Conference on Trade and Development (UNCTAD, 1984) which place some of them among the thirty-six nations classified as least developed, and in their comparatively low gross domestic product (GDP) per capita.

Table 1. Basic demographic data and gross domestic product (GDP) per capita for associated countries for 1981[1]

	Population Estimates (mid 1981)				
	Area (km^2)	Total (000s)	Annual Growth Rate (%)	Population per km^2	GDP per capita ($US and rating)
Botswana	600 372	937	2.6	2	1315/2
Ethiopia	1 221 900	32 158	2.5	26	131/13
Kenya	582 646	17 348	3.8	30	392/7
Lesotho	30 355	1 374	2.4	45	263/10
Malawi	118 484	6 161	3.2	52	261/11
Mauritius	2 045	971	1.9	475	1117/3
Seychelles	280	66	2.2	235	2576/1
Somalia	637 657	4 895	2.7	8	299/8
Swaziland	17 363	566	2.6	33	1112/4
Uganda	236 036	13 620	3.0	58	212/12
United Republic of Tanzania	945 087	18 510	3.1	20	283/9
Zambia	752 614	5 961	3.1	8	588/6
Zimbabwe	390 580	7 600	3.4	19	854/5
Total	5 535 419	110 167			

1. The area and population data are from the *Unesco Statistical Yearbook 1983*; GDP figures are from the *1984 Supplement to the 1983 UNCTAD Handbook of International Trade and Development Statistics*, and are based on population estimates which differ from those given by Unesco. However, the differences are not significant for the purposes of this publication.

It is important to remember that GDP figures are national averages. There are wealthy people in all the associated countries, though in some they are more obvious, and there are many more people who are genuinely poor. They are quite unable to pay for such services as private medical care or education for their children, or to ensure that pregnant women and children receive an adequate diet. The implications of this situation for the prevention of impairments and for the health care and education of disabled children are very obvious.

Progress towards universal education

In 1961, Tanganyika, now the mainland component of the United Republic of Tanzania, joined Ethiopia as the second independent country in the sub-region. All the remaining countries except Zimbabwe had joined them by the early 1970s. They have all seen the development of their education system as one of their major tasks as countries free to set their own social goals. They have had to allocate their always very limited development resources first between education and its many competitors health, communications, defence, housing, etc. Then the education funds have had to be shared between three complementary but definitely competing programmes:

First level (primary) education, which should be available to all children and for most of them provides their complete formal schooling.

Second-level (secondary) education for the minority of children selected by a formal examination at the end of their first-level schooling. Some countries, including Seychelles and Zimbabwe, have now made some years of secondary education available to all pupils who complete the first level. The main purpose of this secondary education is to prepare students for the increasing number of 'middle-grade' skilled jobs, or for the selective examinations needed for admission to higher studies at:

Third-level (tertiary) education in universitities and other professional training institutions, including teacher-training colleges.

These three programmes are hierarchical: admission to the second, or upper second, and the third level is selective on the basis of success in formal national examinations. As a result, the work of each primary and secondary school has been, and still is, influenced to some degree, and in many cases very strongly, by its community's expectation that it will prepare its pupils to compete for entry to the lucrative professional and business world. Add the facts that many first-level teachers have had little and sometimes no professional training, that books and equipment are often in short supply in many countries, and that buildings can be inadequate for their increasing enrolments and the difficulties faced by any pupils who have significant learning problems will be very clear.

These countries did not start from scratch in developing their formal national education systems. Each had a long history of preparing its young people for life in pre-colonial society, plus the education institutions developed through their short but critical period of colonial rule. The traditional learning sequences for children living in many, if not most, African societies involved them in some community-planned group experiences as well as their continual informal but vital learning of necessary living skills through their everyday lives. Their group learning could be associated with specific religious teaching or with important personal milestones, particularly their transition from child to adult. However, their society did not provide formal and systematic full-time instruction for the greater part of several years or more in a separate institution, detached to a greater or lesser degree from the realities of their everyday life and focused primarily on 'book learning'. That kind of education was a European import to Africa, initially by the Christian churches.

Church schools for a limited clientèle were well established in Mauritius and Seychelles by the late nineteenth century. During the early decades of the twentieth century, churches and other groups developed first- and second-level schools for Europeans, some of which later admitted selected African and Asian pupils. At the same time, the churches pioneered the establishment of first-level schools for African children, then almost entirely rural, and later set up the early second-level African schools which provided the only available educational ladder for most first- and second-generation African professionals and political leaders. Their schools offered more than the rudiments of literacy, numeracy and other studies; they

Table 2. Educational data for associated countries

Country	Year	Compulsory education		Age ranges for			Enrolment ratios first level (1970 and 1981)						Teacher-Pupil ratio first level
		Age range	Duration (years)	Pre-first level	First level (first or only stage)	Second level	Gross Total	Gross Male	Gross Female	Net Total	Net Male	Net Female	
Botswana	1981	•	•	•	6-12	13-16	102	94	110	84	77	91	30
	1970				7-13		69	65	73		+		
Ethiopia	1981	•	•	4	7-12	13-14	46	60	33		+		63
	1970				7-12		16	23	10		+		
Kenya	1981	•	•	•	5-11	12-15	109[1]	+	+		+		38
	1970	•	•	•	5-11		61	72	50		+		
Lesotho	1981	•	•	+	6-12	13-15	104	84	123[2]	67	54	81	49
	1970	•	•	•	6-13		90	71	109	68	52	84	
Malawi	1981	•	•	•	6-13	14-15	59	70	49	43	47	39	65
	1970				5-12		36	45	26		+		
Mauritius	1981	5-13	8	3	5-10	11-13	107	107	106	89	89	89	48
	1970				5-10		97	98	97		+		
Seychelles	1981	6-15	9	4	6-11	12-15		+			+		21
	1970				+			+			+		
Somalia	1981	6-14	8	4	6-13	14-17	30	38	21[1]	22	28	16	33
	1970				6-9		11	17	15				
Swaziland	1981	•	•	•	6-12	13-15	110	111	109	86	84	88	33
	1970				+		89	91	81	64	63	64	
Uganda	1981	•	•	+	6-12	13-16	54	62	46		+		34
	1970				6-12		39	48	51		+		
United Republic of Tanzania	1981	7-14	7	3	7-13	14-17	102	107	98	72	73	72	43
	1970				7-13		39	47	31		+		
Zambia	1981	•	•	3	7-13	14-16	96	102	90[1]		+		48
	1970				7-13		89	99	7		+		
Zimbabwe	1981	7-15	8	5	7-13	14-19	126	130	121[3]	100	100	100	38
	1970				7-13			+			+		
Source			4		4					5			6

• = none + = not reported

The age ranges given include both the years stated. The data are for 1981 except where noted.

1. 1980 figures
2. 1979 figures
3. 1982 figures
4. Table 3.1
5. Table 3.2
6. Table 3.4

Source: *Unesco Statistical Yearbook 1983* provided a potpourri of religious teaching and general information, and they transmitted through their total school environments attitudes concerning African people and their society as seen essentially through European eyes, which had profound effects, though not always those that the school staffs desired.

In the years following the Second World War, governments slowly accepted more responsibility for primary- and secondary-school education services. They began supporting the private schools which offered free, or nearly free, education; they also began setting up national school systems. This government involvement gained increasing momentum as the colonial countries gained their independence. Non-government schools are still important in many of the countries as providers of first- and second-level education, but all the governments now have the authority to shape their own country's education system as they wish.

An early expression of this stronger government commitment was the high priority which African ministers of education gave at their 1961 Addis Ababa conference for the provision of a period of first-level education for all children of school age. At that time, some 16 per cent of the eligible children were then enrolled in school. Table 2 gives some indication of the progress achieved at the first level in the succeeding twenty years. This is the most relevant level for any study of special education. Almost all the existing special education services come under the various governments' administrations for primary education, and this is the level at which all the associated countries aim to achieve the goal of universal enrolment set at Addis Ababa, which will require programmes for children needing special education.

The gross enrolment ratios include the enrolled pupils older than the stipulated age range, who constitute a significant part of the enrolments at least 10 per cent in Swaziland and 26 per cent in Zimbabwe. This high Zimbabwe figure presumably reflects a surge in enrolments following independence and the new government's emphasis on the importance of education. The net ratios include only enrolled pupils within the stated age range and are much better indicators of progress towards 100 per cent enrolment by children of school age.

Had Seychelles provided any enrolment ratios, both its 1981 ratios would have been among the highest in the sub-region. The relationships between the gross and net ratios for the eight countries which did report them both vary too much to give a useful indication of the four unstated ratios. The figures need to be interpreted cautiously, but the following comments seem justified.

- The sub-region as a whole had made very real progress over twenty years toward the goal of providing a period of universal education for all its children. This had been achieved during a period of unparalleled population growth and required a substantial national investment. Thus Kenya was stated to be allocating 16 per cent of government expenditure to education in 1981, and in 1976 the latest year for which this figure was available it allocated 63 per cent of total funding for education to first level services (UNCTAD, 1984).
- The period of formal education available to all enrolled pupils ranged from six to ten years. Seychelles provided the ten-year period and also set the highest compulsory requirement, nine years. In most cases, the five countries which set compulsory enrolment requirements did not enforce them, or did so selectively, and only where sufficient school places were available (Unesco, 1983). No formal data were collected on the actual school attendance of those children who did enrol, but it was described as ranging from quite high to poor, reflecting the significance which a particular community gave to first-level education and to children's contributions. Certainly in some countries a significant proportion of children who enrolled did not complete the available period of non-selective education. Some attended reasonably well for some years and then less regularly, perhaps an indication that in their eyes, and those of their families, they had gained a sufficient level of basic literacy skills.

- The gap between the group with higher enrolment ratios of 80 per cent or more and those in the 20 to 50 per cent range was still considerable, and represented many thousands who were not enrolled at school. The front-runners, including Seychelles, Swaziland, Mauritius and Zimbabwe, will now need to focus on developing their special education services if they want their enrolment ratios to approach 100 per cent. Zimbabwe's reported 100 per cent net enrolment for 1981 suggests that its population estimate for the age groups concerned was too low, as it still had many children of school age who needed special education and who were not enrolled at school. These children were certainly not excluded from the Addis Ababa declaration. Progress in serving them will be determined partly by factors specific to special education, including public attitudes towards disabled persons. However, it will also be governed, as it has already been, by the amalgam of economic, social, political and other factors, different for each country and changing over time.

To identify and assess the relative importance of these factors across the sub-region would be a major task, beyond the focus of this study. However, a simple exploratory check was made of the possible associations between the items included in Table 1 and the indicators of educational progress included in Table 2 (See Annex 3); its results are limited and tenative, partly because it does not take into account changes over time in ratings on variables such as per capita GDP, and partly because it leaves out altogether important factors such as a country's political stance on serving its disabled population, the impact of external aid on the development of government and non-government education services, or the effects of civil disorder or drought on social progress.

Given these reservations, and accepting that Seychelles probably had comparatively high enrolment ratios, a visual check of the comparative rating of each country on each of the factors included in the two tables shows that the five wealthier countries, in terms of per capita GDP, were all rated in the top six on each of the six enrolment ratios (see Table 3).

The rank order correlations for ratings on the six enrolment ratios and per capita GDP were all positive, which suggests the existance of a significant long-term link between a country's GDP and the pace at which it had developed its first-level education services. There are also lower but interesting correlations between ratings on lower pupil-teacher ratios and higher gross (and net) enrolment ratios on the one hand and lower total populations. All the remaining correlations were positive but low, including those between enrolment ratios and the 1981 rates of population growth.

However, as Table 3 shows, some countries' ratings on particular items were well out of line with the general trend of their ratings, including that of per capita GDP. These variations simply point up the important fact that the study has not considered some possibly very important influences on the rate at which a country has developed its education services, including its government's political stance concerning first level education, the impact of external aid on the development of these services and the effects of civil disorders and drought on social progress generally.

Finally, the relationships between the male and female ratios for the eight countries which reported net ratios defy any simple explanation: the rank order correlation is P = 0.90 between the ratings on net male and net female enrolment ratios. However, this high overall relationship masks some considerable differences within some countries.

Clearly, while per capita GDP seemed associated with male-female enrolment parity, it was not the only factor. Botswana and Lesotho mentioned the substantial involvement of school-age boys in family activities and cattle herding, and Somalia noted that its sex imbalance was related to public uncertainty about girls' enrolment at school. Malawi's lesser inequality was not followed up.

Table 3. Ratings of associated countries on data given in Tables 1 and 2

Country	GDP per capita 1981	Area[1]	Population Total[1]	Population Per km^2	Population Annual growth rate (%) 1981[1]	Enrolment ratios Gross Total	Enrolment ratios Gross Male	Enrolment ratios Gross Female	Enrolment ratios Net Total	Enrolment ratios Net Male	Enrolment ratios Net Female	Pupil/teacher Ratio 1981[1]
Seychelles	1	1	1	2	2	-	-	-	-	-	-	1
Botswana	2	9	3	13	5=	6=	6	3	4	4	2	2
Mauritius	3	2	4	1	1	4	4	5	2	2	3	9=
Swaziland	4	3	2	6	5=	2	2	4	3	3	4	3=
Zimbabwe	5	7	9	10	12	1	1	2	1	1	1	6=
Zambia	6	11	7	11=	9=	8	5	7	-	-	-	9=
Kenya	7	8	11	7	13	3	-	-	-	-	-	6=
Somalia	8	10	6	11=	7	12	11	11	8	8	8	3=
United Republic of Tanzania	9	12	12	9	9=	6=	3	6	6	5	6	8
Lesotho	10	4	5	5	3	5	5	1	5	6	5	11
Malawi	11	5	8	4	11	9	8	8	7	7	7	13
Uganda	12	6	10	3	8	10	9	9	-	-	-	5
Ethiopia	13	13	13	8	4	11	10	10	-	-	-	12
Number of countries rated	13	13		13		12	11			8		13

Notes: The countries are listed from 1 to 13 in terms of their 1981 per capita GDP.
The top rating - 1 - has been given in each column to the country with the highest per capita GDP, enrolment ratios and population per km^2, and the lowest pupil/teacher ratio, total population, area and rate of population growth.
The equal sign (=) indicates countries with similar ratings.

Special education to 1981-83

The project staff met some adults (and learnt of more) with quite significant handicaps who had completed their primary and secondary education successfully at an ordinary school in the 1960s or early 1970s with no special help. Some had later obtained a third-level qualification, or were studying at that level. Most were physically disabled (often through poliomyelitis) and had no other serious educational handicaps. There must be many other similarly disadvantaged people in the sub-region who earned academic success in this way, but many more children attended an ordinary school and made poor progress because they needed special tuition which their teachers could not provide. An unknown number of them dropped out. There must also have been many parents, teachers, health workers and other interested people who knew that there was an even larger number of seriously handicapped children who would not have been accepted for enrolment at an ordinary school if this had been suggested and who simply had no access to an appropriate education.

Providing special education has proved a slow and demanding task over the forty years or so since the first special education programmes in the sub-region known to the project were established. There may have been some private special education programmes functioning before the Second World War, perhaps established by small groups of parents or as informal units associated with private schools, but the earliest three services located were all schools for blind children established by religious organizations, two begun in Malawi in the early 1940s, at Kasungu and Lulwe, and the third by the Salvation Army in 1946 at Thika, a small town some 30 kilometres north of Nairobi.

Two years later, two special schools, St Nicholas and Aga Khan, were established in Nairobi by local voluntary organizations to cater for mentally handicapped children. They amalgamated in 1968 as the Jacaranda School, which remains one of the most active schools of its kind in the whole sub-region. But progress was slow in the final forty years or so of colonial government, and in independent Ethiopia during the same period. With very few exceptions, any government involvement in developing special education services was by way of grants towards the capital and operating costs of services financed mainly by the voluntary organizations which established and administered them.

Two interesting exceptions to this limited and essentially reactive government approach during the pre-independence period have been noted. In the 1950s, the government of what was then Southern Rhodesia began to establish what became a network of special classes for mild to moderately mentally handicapped pupils at some of its schools for white pupils. It also opened a residential school for white children in this category who could not attend a special class, mostly children from rural areas, and a psychological service to select children for admission to or withdrawal from these services. This programme paralleled that available in the United Kingdom for the same group of pupils, then known as educationally subnormal.

The second exception was perhaps the first acceptance by a government in the sub-region of a direct responsibility for the education of handicapped African children. In 1956, reportedly[1] reflecting the personal interest of the then Governor, the Ugandan government authorized the establishment of educational services for visually handicapped children. By 1981, these services included one special school with a training centre for teachers of visually handicapped children and an associated resource centre supporting pupils attending nearby primary and secondary schools. Other units were located elsewhere in Uganda, in one secondary and sixteen primary schools. In 1981, this was still the one special education service directly funded and administered by the Uganda Government.

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[1] Oral report by the Uganda members of the Unesco Sub-Regional Seminar on Planning for Special Education, Nairobi, July 1981.

The pattern of private groups taking most of the initiatives in setting up special education services, with varying degrees of government support and external aid, continued through the 1950s and 1960s. This was true also for the very limited progress made during those two decades in developing vocational training programmes for disabled people. As countries gained their independence, they may have given more public recognition to the needs of educationally handicapped children, but they did not give these needs much priority in their budgets. They did, however, give considerable attention to strengthening general health services, which presumably helped to reduce the incidence of impairments.

No information was sought, but by the early 1970s eight or nine of the associated countries had at least one school or unit for blind children and one or more for those who were deaf. About five of these countries also had one or more schools for mentally or physically handicapped children. By then, also, at least three countries, Kenya, the United Republic of Tanzania, and Zambia, were beginning to plan for long-term development of a coherent national education programme for children with special teaching needs as part of their drive to provide a period of formal education for all children.

Oral and written reports, the growth of advocacy and support groups and the undoubted increase in government action all point to a rising public recognition through the 1970s of the claims of disabled persons for equality with others in their access to education, employment and necessary health care. The response in 1981 to the International Year of the Disabled throughout the sub-region was considered stronger in the cities than in rural areas, possibly reflecting lifestyles and educational status. It also showed a stronger government commitment in some countries than in others, and perhaps expressed more sympathy than acceptance or respect, but it was genuine. The change is reflected in the success of Kenya's own national Year of the Disabled (1980) which produced, along with many smaller concrete results, a national trust fund amounting to some $2.5 million, which has been invested to provide long-term support for services for disabled people in addition to that offered through government and other programmes. Another indication of this movement is the fairly general accession by the associated countries to the various conventions concerning the rights of disabled people which have been developed by the United Nations and its agencies.

This slow change in government and public attitudes has been real, and it will be increasingly important as it strengthens positive community action on behalf of handicapped children and adults. However, in terms of actual accomplishments, there was a marked gap between the hopes and expectations voiced increasingly through the 1970s and the progress which was actually made in providing the health, education and vocational training services which they needed. The prospects for steady growth using both local funds (government and private) and overseas aid were clouded by the serious economic difficulties which affected all the associated countries, though some more seriously than others, from the mid 1970s. This point was made very clearly by several speakers at the project's first seminar, on planning for special education (Nairobi, July 1981). The situation was further aggravated for some countries by continuing political instability and by drought. Nevertheless, many countries made considerable progress during the decade. Thus the United Republic of Tanzania, one of the larger, less wealthy but basically stable countries, trebled its reported special education enrolments between 1971 and 1981 (Kisanji, 1984).

Special education enrolments

The information gathered by the project provides the first known overview of special education in the sub-region. Its enrolment data (Table 4) indicate enrolments at different times during that period (usually when a related seminar was held) in the services which were then identified as available for children and young people who had educational handicaps justifying their full- or part-time enrolment in a special programme offering tuition not available in regular classrooms. The administrative division between recognized special education services and other teaching services for educationally handicapped pupils is discussed later.

Table 4 includes the 1,465 full-time enrolments recorded in the 'maladjusted' category, although these all related to pupils at the special schools in residential institutions in Kenya and Zimbabwe for children and young people placed in them because they have been deemed delinquant or for some other reason needing care. These institutions, and those in the United Republic of Tanzania for which no enrolments were obtained, were controlled by the country's Ministry of Welfare or Home Affairs. However, these particular enrolments have been excluded from Table 5 and the related discussions later in this chapter on progress in developing the special education services because their inclusion as 11 per cent of Zimbabwe's total enrolments and 15 per cent of Kenya's could have possibly given undue weight to a programme which none of the associated countries then administered or financed through its Ministry of Education.

The term 'learning disability' has been used as a convenient general inclusive term for the range of educational handicaps which were retarding the school progress of the 2,800 or so pupils receiving the part-time remedial education then provided on an organized basis by two governments. The service was provided either at a resource centre or clinic or else by itinerant specialist teachers, each serving a group of schools. Using the term does not imply that all these pupils would have been assessed as having a specific learning disability as this term is now often used, though some might well have been. The few identified teaching services for hospitalized children are included in the 'physical handicap' category, but no enrolment information was obtained.

As the data in Table 4 were collected at different times for different categories, and each country collected in its own way, they do not record the total special education enrolments in any one country or any particular category at one particular time. Nor do they necessarily show the maximum possible enrolments which any particular service could accept. The enrolments in the 'maladjusted' category are only approximate because some of the 1,465 enrolments in residential institutions probably included inmates who actually attended a nearby regular school, some may not have actually attended a school full time (or at all), and children of staff members may have attended the special schools at some institutions. The enrolments at one of the two services for pupils with learning disabilities were also approximate.

Time did not permit the systematic collection of any further information under such headings as pupils' age and sex, their age when first enrolled or the precise nature of their handicaps, but some information of this kind was obtained on particular groups and is used in the study.

The work of all these services and their associated assessment and support services is discussed elsewhere. The important point here is that while they were clearly quite inadequate to meet the existing needs of even the best served country, they constituted, together and individually, a tangible recognition that a need existed.

Some other indicators of real progress by 1981 can also be given. Of the thirteen countries: twelve (all but Somalia) had some vocational training programmes for some school leavers, though these were all very limited; eight had some

Table 4: Summarized special education services 1981-83

Country	Visual handicap									Hearing handicap								Physical handicap			Mental handicap						Hospitalized	Maladjusted			Remedial services (part-time)			Multi-handicapped					Total enrolments	
																					Mild-Moderate		Moderate-Severe																	
	I	I	II	II	III	III	III	IV	V	I	I	I	II	II	III	III	V	II	II	V	II	II	I	II	II	V	I-II	II	II	V	II	II	V	I	I	II	II	V	Full-time	Part-time
	A	D	A	B	A	B	D			A	B	C	A	B	B	D		A	B		A	B	A	A	K		J	F	G		B	H		A	E	A	E			
Botswana				1				(1)	21				1				12	1	±30					1		36													99	
Ethiopia			6			1		(2)	532	2			6			1	339	3	-	140																			1 011	
Kenya	(2)		5	1	1		6	(2)	967				19	2			2 000	7	15	1 648+		15		11		600			7	1 134				1	1	1	1	±30	±6 379	
Lesotho				1		1			25				1				8	1		48						-													81	
Malawi	(2)		2	14		1			215	1			1				110		1	30						-													355	
Mauritius		(2)	1						35	2	1		1	1			86		3	19				2		183													323	
Seychelles			1						2	1			1				20	1		94				1		75		1		(3)		6	±150(4)						191	±150
Somalia									-								-									-													-	
Swaziland			1						75	1			1				40			-				2		65													180	
United Republic of Tanzania			3	13		6	6	(2)	476				4				274	2	3	253				1		10			2	(3)									1 013	
Uganda			1	15			1		135	1			2				150	1	2	124				2		30													439	
Zambia			5			6			393	1		1	2	6	3		285	6	5	592		5		1		130	(5)				4	180	2 700						1 400	2 700
Zimbabwe			2	9	1	2	(2)	(2)	590				3	2			574	2	2	450	1	61	(2)	8	1	1 186			4	331									3 131	
Totals	(2)	(2)	27	54	2	17	8+	(2)	3 466	9	1	1	42	11	3	1	3 898	24	31	3 428+	1	81	(2)	29	1	2 315	1	1	13	1 465+	4	186	±2 850	1	1	1	1	±30	±14 602	±2 850

Level of service and enrolments:

I	Organized pre-school service.
II	First level (primary) service.
III	Second level (secondary) service.
IV	Third level (tertiary) service.
V	Total enrolments.

There are no separate special schools for pre-school children. Most of the reported services were provided by special schools or some units enrolling mostly older children.

Type of service:

A	Special school.
B	Special unit at ordinary school.
C	Special multi-disciplinary clinic at a hospital.
D	Support service for pupils in ordinary classes.
E	Special unit at a special school for physically handicapped.
F	Schools in multi-disciplinary rehabilitation centre for maladjusted children.
G	Schools in Ministry of Home Affairs or Social Welfare institutions for children and young people.
H	Itinerant specialist teachers/advisers.
J	Special school at a hospital.
K	Special school at a long-stay hospital for severely-profoundly handicapped children.

Notes:

1. Proposed 1983.
2. Some programmes reported, number not stated.
3. Enrolment not obtained.
4. Estimated.
5. 1+ programmes at hospitals - number and enrolments not known.

administrative machinery, more effective in some countries than in others, intended to co-ordinate the work of government (and in some cases non-government) agencies serving handicapped persons; at least six had one or more active advocacy groups such as a society for the deaf, taking a continued interest in special education (Kenya, Malawi, Mauritius, Swaziland, the United Republic of Tanzania, and Zimbabwe); five had at least one full-time training course of at least one year's duration for special education teachers (Kenya, Malawi, Uganda, the United Republic of Tanzania, and Zambia); five had at least one officer in their ministries of education whose title referred to special education (Ethiopia, Kenya, Seychelles, Uganda, and the United Republic of Tanzania) while in three others an officer had a recognized responsibility for it (Malawi, Seychelles and Swaziland); and three had curriculum development staff in their ministries of education with stated continuing responsibilities for special education (Kenya, the United Republic of Tanzania, and Zambia).

Estimates of the need for special education by 1981-83

The project's working programme for 1981-83 was finalized after discussions with the associated countries had identified the areas where they most wanted assistance and where Unesco considered that it could usefully contribute. The selected topics did not include any formal study of the number of children needing special education and their learning difficulties. This topic was seen as important in the long term but less pressing than making the best use of the resources already available for special education services in the face of an obviously large unmet need.

This proved a wise decision because (as the project staff soon learnt) it was doubtful whether any research on the matter which would have been of any practical relevance to the work of teachers and administrators across the sub-region would have been feasible, given existing social and professional frameworks.

This comment relates directly to the project's working definition of special education given earlier, essentially that needed by those children for whom regular schools could not cater because of their educational handicaps. An unknown but considerable fraction of them were never brought formally to the notice of the education authorities. They probably comprised a higher fraction of the total group of children with significant educational handicaps than was true for the fraction of other children not enrolled at any school. As the gross and net enrolment ratios for first-level education reported in Table 2 show, this latter group was still quite substantial in some countries.

The key requirements for a useful study of the incidence of young people requiring some form of special education are: agreed and adequate criteria for assessing the educational abilities and handicaps of all the young people in a specified age gap in a specified geographical area; adequate guidelines for identifying the members of that tested group who have educational difficulties which are greater than those which a regular schoolteacher could be fairly expected to handle from available resources; and sufficient staff able to complete these individual assessments within an agreed period of time.

If the results of these assessments are to be related to a wider population, the relevant relationships between the tested group and that wider population must also be assessed so that the reliability of the incidence figures for use in the larger context can be reported.

This is a complex and demanding exercise in a country which has the resources necessary to plan and complete it. By 1981 none of the associated countries had developed the necessary criteria or guidelines, or had sufficient suitably trained staff and specialist equipment needed to conduct a study of this kind across a substantial population. Some preliminary indications might have been available had countries had collected records from their educational assessment services, if any, and their regular schools related to this field. Most of the decisions to refuse children enrolment or continued attendance in a regular class were made by head teachers. In some cases, they had broad guidelines to help them, and they might also have comment from special education or assessment staff, medical doctors or nurses, welfare staff or other interested people. However, the head teachers made their decision, in their own ways, using their own criteria, after whatever consultations they wished with their own staff.

Although the project did not make a full search for completed or current incidence surveys and related studies, it learnt of several which illustrate some of the approaches which had been or were being followed. Three of them are reported or referred to in later chapters. As a contribution to the United Republic of Tanzania's involvement in the International Year of the Child, Joseph Kisanji made a preliminary assessment of handicapping conditions in 2,264 children comprising some 64 per cent of the enrolments in the two lowest grades in nine primary schools in Dar es Salaam. He reported (Kisanji, 1981) an incidence of 2 per cent in this population, which he considered very high, perhaps taking into account that a substantial fraction of the city's handicapped children were probably not enrolled at any school. He assessed his findings as high when compared to European and American studies, but noted that this may have been due to different demographic patterns and to limitations in some of his identification techniques.

Reputable incidence studies from more developed countries outside the sub-region were of questionable relevance for this study, given the different life-environments (including health hazards) of the children in those countries and the sub-region, and the fact that validated indigenous criteria for 'emotional disturbance/maladjustment' and 'mild to moderate mental handicap' were still lacking. As a matter of interest, the United States Office of Education conducted a major incidence study at about the same time (1974/75) as the Mauritian assessments were made (Hallahan and Kauffman, 1978). It found that some 12 per cent of young people below 19 years of age were assessed as needing some kind of special education. Its incidence figures for physical, mental and visual handicaps were lower than those in the Mauritius study; those for hearing and speech handicaps much the same; and those for emotional, specific learning and multi-handicaps were rather higher.

The project was informed in 1981 that Seychelles was conducting a household survey to identify its disabled children and adults, a realistic enterprise in that small and relatively compact country, but its educational implications were not known by late 1983. The Zambian government conducted a major study of disabilities in children in some selected areas in 1981-83 in conjunction with the United Nations Children's Fund (UNICEF).

Three estimates given by reputable international organizations in the past decade are also relevant. The first (United Nations, 1976) concluded that some 15 per cent of children needed special education or rehabilitation measures of some kind, and that this proportion was higher in developing than developed countries. The second, the Sundberg Declaration (1981) adopted by the 1981 World Conference on Actions and Strategies for Education, Prevention and Integration, organized by the Spanish Government and Unesco, noted that '10 per cent of the world population is affected one way or another by handicaps, and the prospects are worsening'. Finally, the third estimated that 'at least one in every ten children is born with or acquires a physical, mental or sensory impairment' (Rehabilitation International, 1982).

It did not prove possible for the project to make any useful major assessments of the real need for special education either in the sub-region as a whole or in any of its associated countries. By 1983 planners could have benefited from well-planned smaller studies based on educational criteria to give them up-to-date information on the relative frequency of the various major handicapping conditions and on the proportion of handicapped children whose difficulties and circumstances actually warranted their special education in a special school. The various overall estimates given here are not useful for concrete planning or for measuring progress because, quite properly, they give no definite targets.

This brief review has not tried to record all the sub-regional studies and other relevant information on the likely actual need for special education, which was actually available to the administrators, university and teacher training college staff and teachers involved with special education services in 1981-83. However, it gives a clear indication of the general lack of those data.

It was probable that if more reasonably reliable local data had been available, this could have strengthened the hands of the comparatively small groups of people who tried to persuade their governments to give a higher priority to developing services for their disabled citizens.

However, the general lack of useful locally based assessments of actual needs has prevented this study from reviewing the progress which individual countries had made by 1981-83 in catering for its young people who merited special education, as has the lack of comparable educational statistics on the size of the actual populations from which those young people were drawn.

Because some simple comparisons of this progress and its possible links with factors such as enrolments in regular schools and per capita GDP seemed worthwhile, an alternative strategy has been used. The total reported population in each country aged 5 to 14 years inclusive has been taken to represent its population of 'school age', and an arbitrary figure of 10 per cent of that population is used as an interim assessment of the fraction of that population meriting full or part-time special education.

Thus a country with a 'school age' population of 1 million would have an interim special education target, solely for the purposes of this study, of 100,000 enrolments. If it actually served 5,000 handicapped pupils, this would represent an enrolment ratio of 5 actual for every 100 targeted enrolments. As no empirical validity is claimed for this interim assessment, a higher or lower percentage would have been equally useful for this review. However a 10 per cent target offers a reasonable balance between, say, 5 per cent, which seemed too small an estimate of the percentage of young people with obvious and more serious disability-related handicaps, and 15 per cent, which would have included an unknown fraction of the school-age population near the margin of acceptance for education in a regular class. This interim target makes no claim either to present or to longer-term validity.

When the total group aged 5-14 years is taken to represent the 'school age' population for 1981-83, it implies a need for some 3 million (10 per cent of 29.7 million) full- or part-time places in special schools, units and support programmes. Applied to the group aged 0 to 4 years, it implies that of those aged 2 to 4 years the 'pre-school' group at least a further million 10 per cent of (0.6 of 20.9 million) could have needed some kind of specialist support service.

Progress towards interim targets for school age populations by 1981-83

Table 6 shows each country's interim 10 per cent target, its reported 1981-83 enrolments and these enrolments per thousand targeted places. The enrolments do not include the ±1,465 at Kenyan and Zimbabwean special schools at residential institutions for young persons in care, which were reported in the 'maladjusted' category (Table 4). They are omitted because they were neither administered nor financed by education authorities and their inclusion would have complicated discussion of progress in developing the cluster of services which all countries accepted as necessary in their special education programme. These were services for young people with hearing, mental, physical or visual handicaps or some combination of these conditions.

Table 5. Total population for the sub-region; breakdown of young people by age

Age	Population (millions)	Percentage of total population
0-4	20.9	19
5-9	16.5	15
10-14	13.2	12
15-19	11.0	10
0-19	61.6	56

Source: *Unesco Statistical Yearbook, 1983.*

When all the justified reservations are made in terms of the assumptions and data on which it is based, Table 6 records unmet needs which were clearly enormous in terms of its 10 per cent interim target, with only six enrolments reported for each 1,000 required to reach that standard across the sub-region. In those terms, some 99 per cent of its school population needing some form of special education did not receive it. Some countries had moved comparatively a lot further than others, with Somalia at one extreme and Seychelles at the other.

Two other points will be made here. Table 6 suggests that if an ultra-conservative 1 per cent interim target had been set, six countries apart from Somalia would not have met it, and Zambia would have done so only when its support services were included. Kenya, which had one of the best overall special education programmes in the sub-region, would have been just above that mark.

Relating the country ratings for per capita GDP in Table 3 with those for special education enrolments in Table 6 suggests possibly closer associations between these variables than those noted in Annex 3 between per capita GDP and all the enrolment ratios (gross and net) for first-level education. The relevant positive rank-order correlations 'p' with per capita GDP were:

.80 for full-time special education enrolments only
.78 for all special education enrolments
.55-.64 for gross and net enrolment ratios for first-level education
.96 for the net enrolment ratios for first-level enrolments given in Table 3 for eight countries.

Relating each country's ratings for special education enrolments in Table 5 with that for its per capita GDP in Table 3 suggests possibly closer association between these two variables than between those discussed earlier between per capita GDP and either gross or net first-level enrolment ratios reported in Table 2. The relevant rank order correlations p, and all positive with per capita GDP are reported in Annex 3. They were:

.81 for full-time special education enrolments only
.78 for full and part-time special education enrolments
.56-.64 for gross and net (eight countries only) enrolment ratios for first-level education see Annex 3
.90 for either full or part-time special education enrolments.

Table 6. Reported Special Education Enrolments and Enrolments Required for Interim 10 per cent Target (1981-83)

Country	Population 5-14 years (000s)	Special education places - 10% interim target	Special education enrolments		Enrolments per 1000 targeted		Country rating by reported enrolments per 1000 targeted	
			Full time	Part time	Full time	All Places	Full time	All places
Botswana	281	28	189		6.8		7	7
Ethiopia	8,361	836	1,011		1.2		12	12
Kenya	5,030	503	5,245		10.4		5	6
Lesotho	344	34	81		2.4		8	8
Malawi	1,663	166	355		2.1		9	9
Mauritius	213	21	323		15.4		2	3
Seychelles	18	1.8	191	±150	106	±189	1	1
Somalia	1,224	122	-	-	-	-	13	13
Swaziland	153	15	180		12.0		4	5
Uganda	3,677	368	474		1.3		11	11
United Republic of Tanzania	4,998	500	1,013		2.0		10	10
Zambia	1,609	161	1,400	2,700	8.7	25.4	6	2
Zimbabwe	2,128	213	2,800		13.1		3	4
Total	29,699	2,970	13,137	2,850[1]	4.2[2]	5.4[2]	(3)	

1. From Annex 2
2. Places available Interim target
3. 1 = country with most full time places available per thousand needed

These correlations and the comments which follow are subject to all the reservations already made on their limited and sometimes uncertain data base, and their underlying assumptions. That said, they do suggest a possibly significant relationship between any country's relative economic strength in the sub-region in 1981 and its relative progress in developing its special education services up to 1981-83. The correlations also suggest that, at least for the eight countries, progress in developing special education services was also linked positively to progress in developing first-level education as a whole.

Progress towards equality for handicapped children in their access to an appropriate education

The study can be taken one step further for the seven countries which provided their net enrolment ratios for their first-level education in 1981 and which had some special education services.

One of the strong claims made on behalf of all children who need special education is that they should have equality with other children served by the same education system in their access to an appropriate education. Thus if a developing country can provide first-level education for, say, 60 per cent of its children who benefit reasonably from an ordinary teaching programme, it ought to be serving 60 per cent of its children who need special education. There are strong grounds for claiming some additional priority for the handicapped group, who stand to lose more from not attending a suitable school than will more fortunate children. However, attaining equality of access is still a far distant goal for most, if not all, developing countries and certainly for those in this sub-region.

A short study, described in Annex 3, looked more closely at the present status of the special education services in the seven countries in terms of equality of access, and possible links between the gaps or rather the gulfs between the first level and special education enrolments on the one hand and a country's per capita GDP or its net enrolment ratio for first level education on the other. This study also is exploratory and not definitive, but it does give some interesting leads for further consideration. It assessed the existing imbalance for each country in terms of the number of times the 1981-83 enrolment in its special education services would have had to be increased to provide equal access for those children who needed some kind of special education and those who did not. The country with the lowest 'equal access factor' was closest to that goal, whatever proportion of its school age children was reported as enrolled at school.

The results from the study (see Table 7) reveal the predictable positive associations between the seven countries' ratings on this equal access factor with those for their per capita GDP and their estimated enrolment rate for children not needing special education: $p = +0.61$ and $+0.81$ respectively. In general, children in wealthier countries who needed special education were not so far behind other children in their own country, in terms of their access to a suitable education, as were their counterparts in less wealthy countries. However, as the access factors show, equality was still a distant goal in the best-served country of the seven assessed, Mauritius. Even there the special education services needed to cater for some sixty times more children, either full or part time, to approach that target.

Table 7 suggests quite strongly that factors other than a country's economic strength could have influenced the progress made by 1981-83 towards matching education services for children who needed special education (the 10 per cent target) and those who did not.

A simple inspection shows that the seven countries divided into two distinct groups. Lesotho, Malawi, and the United Republic of Tanzania, were in one and the wealthier four in the other. The assumptions used in calculating the estimated enrolment rates per 1,000 school-age children not needing special education are given in Annex 3. The rates are clearly only approximate, but their errors are not sufficient to negate either the general picture given by the equal access factors or the differences they reveal between the percentages of children 'not needing special education' (taken here as 90 per cent of the total school age group) who were actually enrolled in first level education in each of the seven countries concerned.

Table 7. Estimated relative availability of suitable schooling for children 'not needing' and children 'needing' special education, 1981-83

Country	Per capita GDP (US$)	Estimated enrolment rate per 1,000 'not needing	Reported enrolment rate per 1,000 'needing'	Equal access factor	Group rating on equal access
Botswana	1 315	886	6.8	130	3
Mauritius	1 117	940	15.4	61	1
Swaziland	1 112	908	12.0	76	2
Zimbabwe	854	1 000	13.1	76	4
United Republic of Tanzania	283	760	2.0	380	7
Lesotho	263	707	2.4	294	6
Malawi	261	454	2.1	216	5

If the other five associated countries had reported their net total enrolment ratios for 1981, Seychelles would probably have had the most favourable equal access rating, Kenya and Zambia a middle range assessment, and Ethiopia and Uganda a less favourable rating.

Putting this information with that presented earlier concerning first-level education generally suggests some basic queries concerning the development of special education services up to 1981-83 across the whole sub-region which may have important implications for present and future planning. They need more thorough study than would have been possible in this publication, even if the necessary data from all the associated countries had been available, as the following four example show:

1. To what extent did Mauritius having a better access rating than Botswana reflect its smaller size and population density? Both countries had relied considerably on non-government initiatives to establish their special education services.
2. Did Zimbabwe's comparatively favourable access rating reflect its considerable emphasis on providing units rather than special schools and, if so, to what extent?
3. What factors lay behind Malawi's having a better access rating than Lesotho? Was one fuller co-operation with development agencies in establishing special education services?
4. If per capita GDP could be held constant, what were the implications for Botswana and the United Republic of Tanzania of government policies, population density or area on access ratings?

Kisanji (1984) postulates that the extension of first-level education towards universalization could itself be an increasingly important factor in generating support for establishing special education services. He suggests that one reason for this link derives from the fact that teachers in ordinary schools have been facing a growing minority of children with mild to moderate educational handicaps who have teaching needs which they cannot meet. It is certainly true that first-level teachers have become an important group in some more developed countries in persuading, and sometimes pressuring, governments to increase the resources available to assist these children. The response is usually a mixture aimed at strengthening first-level programmes directly (For example, by improved staffing) and improving special support and special education services. If this experience is relevant for the sub-region, first-level teachers will become an increasingly vocal lobby for special education, though when they will become recognized as influential may be another matter. Kisanji's comment implies a stronger pressure to provide special education services as net enrolment ratios approach 100 per cent. The limited evidence considered here supports an association between the development of first-level and special education services, but not a causal link, and leaves the question open to the further study it deserves, considering teachers' interactions with parents and other persons on educational matters generally.

Estimated future need for special education services

The enormous unmet need for special education in the sub-region and the great imbalance between provisions made for first-level and special education up to 1981 left untold thousands of disabled people further disadvantaged socially and economically, and barred them unfairly from participating as much as they otherwise might in the adult life of their community as workers, family members, parents and social contributors.

Taking a conservative overall 3 per cent annual increase, the growth between 1981 and 1982 in the provision needed to implement the interim 10 per cent target for special education would have been 3 per cent of 2.95 million, that is, an additional 88,500 places; the further increase between 1982 and 1983 would necessitate an additional 91,000. The information collected by the project suggested that over that period of two years, when the client group for special education grew by perhaps 180,000 to about 3.1 million, the total number of additional places provided did not exceed 1,000. The increase in the total client group for either one of those years, some 90,000 places, represented itself some five times the total number of special education places, full and part time, available at that period.

Unless the rate of development for special education increases enormously, this cumulative gap will increase until population growth slows considerably, as in Mauritius, or the incidence of educational handicap drops, reflecting better health care. Giving all probable weight to these and other possible improvements, the only realistic stance seems to be that the chances of closing the gap by the end of the century range from credible, though by no means certain, for Seychelles, to almost incredibly remote for Ethiopia and the other countries with comparable needs.

To meet the 10 per cent interim target by the end of this century, Seychelles would have had to establish about 150 new positions (full and part time) each year from 1983, nearly as many full-time places as it then had. Moving across the spectrum, Mauritius would need about 1,800, Kenya 46,000 and Ethiopia a staggering 76,000 places each year. The implications for humane and realistic planning are all too clear. The strategies which the developed countries used to build their special education services over the past hundred years will not work for this sub-region during the foreseeable future if more than a small minority of the children needing services are to be looked after.

The development of health care and vocational training services for disabled young persons up to 1981-83

The project did not seek detailed information on the development of the other government and private social services which are particularly important for disabled people and their families health care, family support, vocational training, sheltered or supported employment, etc. However, its staff did learn something of the recent history of the two services directly relevant to their work, health and vocational training. They soon recognized the enormous investment, in absolute terms, which had been made in the development of public health services across the sub-region since the Second World War.

By 1981-83 this investment had brought improved maternal and child health, reduced the impact of many serious diseases and fostered a growing public awareness of the basic elements of good hygiene and nutrition. In the process, it had undoubtedly had some impact on the incidence of educationally handicapping conditions in young people, but the unmet needs were still very large. As was true for the education services, some countries had made much more progress than others, and although the health services in urban areas were often hard pressed by growing populations, they were more readily available than in many rural areas.

The general economic downturn in the late 1970s and early 1980s was restricting the development of the public health services in the face of rising populations and public expectations, including programmes relevant to the incidence and treatment of impairments in young people. The establishment of vocational training programmes for handicapped school-leavers and adults had been even slower throughout the sub-region than special education services. By the early 1980s, they were clearly quite in the countries where they were best developed, for special school graduates let alone for those disabled young adults who had not received special education. During the 1960s and 1970s, vocational training programmes for disabled people seem to have held a lower priority for governments and for other service groups than did special education services, and their priority was not very high itself.

Co-ordination of services

By the early 1980s, each of the associated governments was the dominant voice special education in its own country. There seemed generally to be a positive link between a particular government's activity in special education and the overall level of inputs into this area from other sources within or outside the country's own borders. Some contributors were clearly self-motivated, but others seemed to need a lead from their government before they became involved.

Probably the largest group of non-government contributors was that comprising the various organizations which administered the many private special schools in the sub-region with varying levels of government support. Their inputs were particularly important in countries such as Lesotho, Malawi, Mauritius and Swaziland where they took the major responsibility for the special education services and for much or all of their staff's special training, and developed their own actual teaching programmes. Varying considerably in quality, they nevertheless provided a good proportion of the more innovative and apparently effective programmes. If the various organizations administering these schools had suddenly disappeared, Botswana, Lesotho, Mauritius and Swaziland would have lost all their services, Ethiopia, Malawi, Uganda and Zimbabwe would have lost most of theirs and Kenya, the United Republic of Tanzania, and Zambia would have been seriously affected. Only Seychelles would have retained its full services.

Several countries had increasing inputs for their special education programmes from interested persons in other branches of education or in other disciplines

Photo credit: Action Aid

including health, social welfare, community development and vocational training. Kenya, the United Republic of Tanzania and Zimbabwe had shown that a university's first lecturer in special education who could gain the confidence of professional colleagues and government administrators could add new dimensions to their work and planning. The common restriction on the development of these professional inputs was the limited and sometimes non-existent communication networks linking the people concerned, both within and across their national boundaries.

In Kenya and Zambia, and possibly elsewhere, handicapped persons themselves were beginning to suggest changes which they considered necessary in special education services. A group of deaf Zambian adults working through the government-supported Council for the Handicapped were querying with government officials and teachers the almost exclusively oral orientation of their country's teaching programmes for hearing-handicapped children.

At the same time, handicapped persons in Kenya were encouraged to comment on its special education services as one activity during the International Year of Disabled Persons, which followed Kenya's own Year in 1980. The latter raised a substantial sum to provide continuing finance for services for disabled children and adults. In 1982-83, the senior pupils at Nairobi's largest school for mentally handicapped students were encouraged to evaluate the pre-vocational education and vocational training programmes which they were offered (and which were being reviewed) and to participate in meetings of disabled people held to discuss matters of common interest, meetings which few persons with mental handicaps had previously attended. The school principal relayed their firm criticism of the amount of ineffective discussion which they reported.

Planned and continuing consultations of this kind between handicapped persons themselves and with their teachers and those planning and funding the services helping them were still very limited but seemed likely to extend. One positive contribution was that made by the Swedish Federation of the Blind in financing the advisory project which was helping organizations of blind people in eastern Africa to develop and improve their work, including their advocacy services on behalf of visually handicapped people. These developments were just beginning to affect some of the special-interest organizations then working in at least eight of the associated countries on behalf of particular groups of handicapped people, in most cases those with a nominated disability. Some commented that they were working more actively to learn their clients' personal needs and to meet them as well as they could. However, each remained a voluntary organization supported and managed by interested people who might but, generally did not, require their servicesd.

In a number of countries (Ethiopia, Kenya, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe) societies for the deaf as well as for the blind and physically handicapped had taken important initiatives in the development of preventive and treatment health programmes and in establishing some of their country's innovative special education and vocational training programmes. For example, the Kenya Society for the Mentally Handicapped (KSMH) was focusing on encouraging mutual support groups among parents and good working links between the latter and their children's teachers, and on establishing viable branches outside Nairobi. The society, the 'Parents and Friends of Handicapped Children', offered parents in or near Nairobi, whose children were in any way disabled, opportunities to meet each other and to meet doctors, teachers and others with relevant knowledge. This society and the others also did what they could to provide aids such as spectacles, hearing aids and wheelchairs to children whose families could not afford them. Other effective organizations in this category include Jairos Jiri and Zimcare in Zimbabwe, some societies developing toy libraries for handicapped children and some effective school-based parent-teacher organizations.

Discussions across the sub-region suggested that most of the existing non-school-based special-interest organizations drew their members as much and sometimes more from professional persons and supportive citizens as from parents of handicapped children. Considered as a group, the great majority of parents of handicapped children, including those receiving special education, did not belong to a special-interest organization which was contributing towards education services for children with special teaching needs. However, influential parents who had a handicapped child could still have a significant impact on the teaching programme for their child, and sometimes for others with a similar difficulty. If, furthermore, they spoke on behalf of a special-interest group, they foreshadowed the day when parents acting together would be more involved in the important health, educational and other decisions on services for all young people.

Some of these special-interest groups were receiving valuable support from external specific-category organizations which might also offer direct assistance to governments, for example the Helen Keller Foundation, the International League of Societies for Persons with Mental Handicap, the Christofeblinden Mission and the Royal Commonwealth Society for the Blind. The Mission's interests in teacher training had led it to finance and provide the first systematic training programme for teachers in Ethiopia's schools for blind children (courses run in school vacations), to finance Kenya's first full-time training programme for its teachers of visually handicapped children in 1981, and to support the establishment of its school for deaf-blind children. The Society was active in promoting staff training, providing equipment and developing vocational and other services for blind adults. The Hadley School for the Blind played a key role in providing distance education services for visually handicapped students within and sometimes outside Kenya. Finally, the decision of the Catholic teaching brothers of the Order of the Immaculate Conception (Netherlands) in the late 1960s to provide the foundation staff for Malawi's first and only programmes to train teachers of deaf or blind children has had a most important impact on the development, the style and the quality of the education services provided for these children both in Malawi and in its English-using neighbours, particularly Lesotho, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe.

A new and important dimension has been added to the development of special education and related services over the past decade by the increasing involvement of some national development agencies, governments or international organizations such as the British Council and the United States Peace Corps sponsoring teachers, the Danish Government's involvement in the new Kenya Institute for Special Education in Nairobi and Sweden's participation in Zambia's major reconstruction of its teacher-training and curriculum development programmes for special education.

Observations and discussions in the associated countries suggested that with the growing involvement of international, national and non-governmental development agencies with special education projects, there would be advantages for all concerned to hold occasional but regular meetings between those agencies and government officers, so that all parties could share information on the present work and explore possible single or joint developments. Proposals to this effect are easier to make than to implement, but the meetings initiated by Unesco in Kenya in 1983 and continued thereafter seemed to have been valuable. As the international body with a close and continuing interest in special education, Unesco was well placed to take this initiative in Nairobi.

WHO's contribution towards improved health services and child care will remain crucial for further significant reductions in the incidence of impairments and disabilities in children; and by supporting the development of community-based rehabiliation services, it has facilitated the growth of one of the most promising programmes to reduce the long-term consequences of those impairments. UNICEF has given support to these programmes as part of its work for disabled children and their families, and ILO offers its own continuing support for the development of vocational training and employment services for disabled persons, a field which has not captured as much public interest and support as those focusing on disabled children. Unesco's country participation programme has assisted many local special education projects selected by governments, and its Coaction programme has given interested persons in other parts of the world the opportunity to contribute to some worthwhile special education programmes in this sub-region. Its broad international programme for special education has provided information, staff training, advisory services and opportunities for helpful professional contacts for special educators from across the sub-region. One special international input during this period was the declaration of 1981 as the International Year of Disabled Persons (IYDP). Some of the associated countries appeared to give it more attention than others; its short-term impact for some people was substantial. A wheelchair offered some immobile people a much wider world and a new training workshop could give its clients new chances to live independently.

The impact of attitudes towards disabled persons on the development of services is the most difficult contribution to assess, but in the long run the most important. The current generalization that traditional attitudes towards disabled persons in the sub-region had been universally negative were being questioned by some researchers, and may need to be reviewed. It would appear that public attitudes have clearly become more positive over the past ten years or more, owing primarily to the impact on particular families and communities of effective health treatments and appropriate teaching for individual disabled children. Public education programmes could add an important extra impetus towards more positive attitudes, without generating lasting change themselves.

The longer-term implications of this shift must be worth while, but there were certainly some urban and rural teachers at the project's 1981/82 seminars who were aware of continuing negative attitudes towards their pupils and their work from some parents and other members of their community. The impact of pressures of this kind on a teacher's actual work is a complex issue. Some of these teachers said that these pressures did not affect their work; some said they would have done so without the support provided by colleagues, other parents and interested people; and some (mostly from units) felt that their teaching was adversely affected. Compared with special teachers in more developed countries, many of those in the sub-region needed a stronger, firmly based self-regard and more personal resilience to maintain a healthy appreciation of their own work. There were some whose attitudes towards their work seemed to reflect its low public standing, as they saw it, and there were others who continued to work professionally in discouraging circumstances.

IYDP had an indirect, probably unintended and possibly very important input for the longer-term development of special education and related services planning and co-ordination. Eight countries could use the committees or councils already available for liaison, and sometimes joint action, by selected government and non-government agencies providing health, education, vocational training or other social services to disabled people. The committees set up for IYDP in the countries which did not have this kind of machinery soon found themselves inevitably involved to some degree with activities in all these fields.

Discussions with associated countries in 1981 revealed that only Malawi had an independent organization with continuing responsibilities towards handicapped people, a firm statutory base and its own budget. Botswana's Commissioner for the Handicapped, a senior and full-time officer based in the Department of Health, collaborated closely with the Botswana Council for the Handicapped in the development of local services for its very dispersed population. However, the other countries with some continuing liaison machinery relied on committees which had no independent authority. Although the stimulus of IYDP had not produced any radical changes by 1983, it had certainly sharpened awareness in some countries of the potential value of stronger inter-agency planning and action across this broad field.

2

Social services for young disabled people

This chapter reviews the more important facets of the work of the social services available both to disabled young people who received, or may have required, special education or vocational training in 1981-83 and to their families.

The national position papers provided for the project's 1981 seminar on planning for special education and many discussions with government ministers and their senior officials confirmed that all the associated governments accepted the final responsibility for the provision and the quality of their country's health and education services for disabled young people. They varied in the role they gave to non-government agencies in these two broad fields, but even those which had been able to make the least progress recognized their obligations. Most, but not all the governments accepted the same responsibility for vocational training programmes, but these were generally given a lower funding priority than health or education. Official policies towards the newly emerging community-based rehabilitation programmes ranged from the major joint Zambia-UNICEF national disability survey, which was then primarily focusing on identifying disabled persons, through active involvement in a few exploratory district projects, usually with some non-government group, to no reported official policy or initiatives but an expressed interest in what was seen as a promising development.

Although the reviews focus on services as they were studied in 1981-83, they have a continuing though diminishing relevance for subsequent years. It was commented frankly that the generally slow progress in developing services for disabled people reflected government assessments that other claims on their limited resources had a higher priority in terms of expressed national goals and immediate public expectations. No radical change was envisaged in the priorities given to these social services in the next five years or so, and developments in such important matters as staff training, curriculum development and pupil support programmes which are noted in the review have important implications but considerable time will be needed before their full impact is felt.

This chapter considers the relevant social services which, if available, might be expected to serve, or have an impact on the life of, a disabled person, moving from infancy through to adulthood. The administration of special education assessment, curriculum development, vocational training and staff training are reviewed.

Health and community rehabilitation services

The gaps in the public health services in terms both of their availability and the health care which they could provide were generally recognized. Further improvements were limited by the generally difficult economic conditions and by the need for substantial and continuing additional expenditure simply to maintain them at their present level in the face of sustained high population growth. The increasing cost of hospital-based services was a further restriction to the extension of services for the 80 per cent or more of the population living in rural areas; the existing training programmes selected and prepared staff primarily to work in hospitals. The severe droughts in some of the associated countries since the mid-1970s were an additional and serious threat to children's health and, through the consequent malnutrition, their intellectual development.

Comments by senior health staff suggested that the public health services in many of the associated countries were not able to make the best use of their existing resources to further reduce the incidence of impairments and disabilities, particularly in rural areas. According to the medical adviser to UNICEF's African Regional Office in Nairobi (Bennett, 1982),

> Until recently, in many countries, the ability to prevent impairment or disability through immunisation or health education was very limited in rural areas, especially in remote areas. Similarly the chances of early diagnosis or rehabilitation for a blind or deaf child in a remote village were negligible.

The generally favoured strategy promoted by WHO in association with other organizations and many developing countries was to extend primary health care services by training people from particular localities to serve as their front-line health careworkers, with professional support from the existing hospitals and clinics. These front-line workers would be able to work with individuals, families and community groups in using all available resources to meet essential health needs. As local people, they would be well placed to identify and make the best use of approaches which were compatible with local value systems and life-styles. This approach would help to promote the general acceptance of measures which would improve general health standards in socially integrative ways and link with such aspects of a community's life as the most effective use of its land and water to provide the best possible nutrition for its people (Mbikusita-Lewanika, 1982). These community-based strategies have a considerable history in the sub-region.

This approach was seen as offering the possibility of more effective action in urban and rural areas to reduce the incidence of impairments due to avoidable pregnancy or birth difficulties, disease, accidents or poor nutrition, and to promote more positive attitudes towards disabled children and their families. Provided the health-care workers had the necessary but quite brief related training and the support of their district health services, they would be able to identify those impaired children needing further examination and arrange for it to be provided along with any available specialist treatment.

The long-term implications of this strategy are reductions in both the incidence of and mortality related to serious impairments in young children. The balance between these two factors will affect the long-term demand for special education. The increased emphasis on immunization for poliomyelitis in the early 1980s was one programme with obvious implications for education services pupils affected by this one disease comprised the largest single fraction of those attending special education services for physically handicapped children. However, the present unmet need is such that any reductions in the incidence of impairments in young children will not by itself reduce the pressure on special education services for many years.

Specialist medical services being available to only a very small fraction of the young children who could benefit meant that the incidence of sensory, physical and some forms of mental handicap in pre-school and school-age children was higher than would otherwise have been the case. This problem will remain serious for the foreseeable future despite the best efforts of many persons within and outside the sub-region to reduce it. However, there does now seem some hope to improve the quality of the home care for disabled children through the development of community-based rehabilitation services.

At their best, these services bring to urban and rural people in their own home the contributions which health services, existing rehabilitation, educational assessment and special education services and other relevant disciplines can bring to providing integrated identification, advice, support and training programmes for disabled persons of any age and those who care for them. They are partners rather than competitors of institution-based hospitals and rehabilitation centres.

The distinguishing feature of the community-based services is their aim to serve those disabled people who are best helped at home or who cannot or do not attend any institutional service based at a hospital, a health clinic or sometimes a special school. They seek to help each community to act constructively towards its disabled members. They also identify those persons of any age who may need more specialist help than they can offer and, after any necessary consultations with their supervisors, try to obtain it, if available. The community-based rehabilitation workers can provide a necessarily limited but invaluable service after a brief initial training, lasting weeks rather than months, and develop further skills as they go, given the very necessary competent supervision, support and further training. Whatever their own professional orientation, supervisers should know the whole range of support and consultation services available to each of their community-based workers and contribute to their effective use.

While some rehabilitation services followed this broad-based multi-disciplinary model, others did not. They were developed, staffed and worked in the broad framework of their country's health network with little if any input from or contact with other rehabilitation, educational or vocational training programmes. As a consequence, their clients and their staff were deprived of the co-operation which other agencies might have been able to offer in developing and providing broad training programmes for disabled individuals.

This narrower approach was perhaps a consequence of the obvious overlaps between primary health care and institution-based rehabilitation services on the one hand and the envisaged community-based services on the other. It was understandable therefore that WHO has played a major international role over the past decade or so in the planned extension of the 'community involvement' element which has been associated with some rehabilitation and other social services for many years. Its draft manual, *Training the Disabled in the Community* (WHO, 1980*b*), was prepared with developing countries in mind and reflected the fact that, for all their limitations, the health services were more widely available to communities than, say, special education services.

Whatever the reasons, some of the early programmes in this sub-region involved only health-related services, but hopefully this will prove a passing phase as the benefits of involving all the services which can contribute become better known.

Another phenomenon noted by project staff was parents who travelled to Europe or North America to obtain assessments, treatments and occasionally some education for a disabled child.

Pre-school education

Reports and observations revealed that only a very small proportion of the children enrolled in special education services were younger than the set minimum age for first-level education in their own country (5 to 7 years; eight countries had a 6-year minimum).

Many special schools enrolled some younger children, but the pressure on their available places was such that pre-school children placed on their waiting lists were often not admitted until they were 8 or older. This unfortunate and longstanding situation seemed likely to continue given the general shortage of special education places. However, the speech and hearing clinic at the University Hospital in Lusaka, Zambia, offered a valuable assessment and part-time education and training programme for some young deaf children and their parents. The Joint Child Health and Education Project (JCHEP) in Mauritius offered a similar service to children with a wide range of handicaps and to their parents (pp. 125 et seq.).

Effective programmes provided for pre-school children with mental handicaps included those offered by the three schools in Nairobi, the Zimcare Trust schools in Harare and Bulawayo (Zimbabwe) and the school administered by the Association des Parents d'Enfants Inadaptés de l'Ile Maurice (APEIM) in Mauritius. That at the Jacaranda school in Nairobi was developing into an innovative multi-disciplinary assessment and teaching unit which could cater for some children with serious multi-handicaps. A programme of this kind, albeit with its focus on handicaps other than serious mental retardation, was also provided at St Giles School in Harare. These were certainly not the only good programmes for pre-school offered by special schools.

An unknown number of children attended the wide range of pre-school education and child-care services available in the sub-region, many in towns and cities, and increasing number provided in rural areas by community groups. However, they still catered for a minority of their potential clients. Kenya was probably one of the more forward countries in developing these services, but its government economic survey for 1983 reported that only 11 per cent of children aged 3 to 5 years attended the 8,000 or so programmes then available.

The project did not study pre-school education in general, but it did learn that some services were funded entirely by governments, many by non-government groups, perhaps with some government help, and some entirely by persons providing essentially an independent school. They ranged from part-time services run by local parents and helpers with a minimum of equipment and sometimes no secure accommodation to well-equipped and housed private kindergartens, staffed by at least one qualified pre-school teacher and charging quite high fees. Their programmes ranged from basic child-care through simple activities and story sessions to carefully planned lessons intended to prepare children socially and academically for a successful start at primary school, and for eventual admission to a secondary school of recognized standing.

Figures concerning handicapped children attending these services were unavailable, but clearly they represented a small fraction of the potential client group. Most who enrolled probably had a mild or moderate disability and could adapt acceptably to an ordinary pre-school programme. If they could not do so, they probably dropped out.

A small exploratory study (Kuitert, 1981) on the enrolment of handicapped children in some of the local government-financed kindergartens in and near Nairobi related to this point. It revealed that the teachers interviewed were sympathetic towards their handicapped pupils, whom they had themselves enrolled, but did not feel able to provide any but the simplest tuition related to these pupils' disabilities. If they did have some knowledge of what they could do, or found somebody able to advise them, they felt that they could not give one child the time needed for useful individual teaching. The teachers considered that their main contribution was the opportunity they offered a disabled child to mix with others who were not handicapped. The Kenya Ministry of Basic Education has since considered including some sessions on teaching handicapped children in the kindergarten-teacher training programme. This could be helpful, but teachers would need much better access to specialist advisory services before they could offer improved programmes to their disabled pupils.

The dividends from providing this kind of support for pre-school teachers emerge from a description of JCHEP's services for handicapped children. This project, which explored appropriate ways of assessing the all-round development of young handicapped children and of providing the best possible education for them at ordinary pre-school programmes, merits careful study as a trail-blazing project relevant for other countries in the sub-region.

Educating handicapped children in ordinary classes

At some time following their fifth, sixth or seventh birthday, depending on which country they lived in, those children in the sub-region who were able to do so could enrol at a government primary school. Only five countries had any requirement for compulsory enrolment and attendance (Table 2) and this was waived where school places were not available: many children of school age were not enrolled and many who were did not complete their primary education. Some attended only for two or three years, and others spasmodically, if at all. There was a risk in some urban areas that school places could become less easily available as the number of school-age children continued to rise at a time when government resources for educational development were restricted by general economic difficulties. However, educational opportunities for children who did not have significant educational handicaps were much greater than those for children who needed some kind of special education.

Joseph Kisanji (1981) considered that his 1979 study supported the view that pupils with mild to moderate hearing, sight, physical co-ordination and speech difficulties, pupils with reading problems and those who were described as generally 'slow learners' were no less common in junior classes than might be expected from studies made elsewhere. He obtained teachers' written assessments and data from audiological sweep frequency tests on 2,264 pupils in Grades 1 and 2 in nine primary schools in Dar es Salaam, some 65 per cent of the total population in their classes. From the 121 children aged 7 to 11 identified through this preliminary screening, he located, through his classroom observations, further inquiries and further audiological testing, 44 children who could be classified with some assurance as having a significant educational handicap: hearing handicap (10), visual handicap (2), cerebral palsy (4), poor health (4), mental handicap (2), social or emotional handicap (9), and learning difficulties (13).

Most of these children came from poor homes with parents who had little formal education; they were receiving little or no remedial education in their present class. Kisanji considered this incidence high in comparison with figures for Europe and North America.

Kisanji's study was a pioneer for the United Republic of Tanzania and probably for many other countries in the sub-region. It related directly only to its own population, but it raises more questions than it can be expected to answer. In so doing, it does illustrate the reality still faced by many, perhaps the majority, of first-level teachers in the sub-region. In almost all the associated countries, they worked in the shadow of the selective examination that would decide which pupils would be admitted to secondary school, an examination that influenced the curriculum for all grades, and indeed some pre-school programmes, by its emphasis on examinable skills.

In this situation, teachers were inevitably influenced to give precedence in their work to the skills and facts which would be tested, and to pace their teaching to ensure that their particular section of their school's syllabus was completed. Those children who fell behind on this hard march might or might not be helped, but if they were, the assistance they received was often of limited value. Some teachers had classes of fifty or more pupils, many had very limited professional education and few had been trained in remedial teaching. Almost all had scanty teaching resources, not intended for children with learning difficulties. As a result, educationally handicapped children risked failure from the day they entered an ordinary class; they could very easily leave prematurely unless they had a firm and sustained family commitment to their continuing attendance. Some children with significant sensory or physical disabilities did succeed at primary school despite their handicap. More would have done so if the limited availability of corrective health services had not led to school failures which reading glasses, a hearing aid or appropriate medical treatment could have prevented, or at least reduced. Those children whose parents could pay for these services were more fortunate.

The difficulties faced by educationally handicapped pupils in regular classes were sometimes increased by unhelpful teachers, but they were generated primarily by the marked imbalance between the heavy demands made on schools by governments and individuals when contrasted with the limited resources available to build, equip and staff them and to train their teachers.

The only reported substantial programmes supporting educationally handicapped children enrolled in ordinary classes were the remedial services in Zambia and Seychelles and the resource centres for visually handicapped children then operating in seven countries. A few small earlier or current support programmes provided by individual special schools or units or specialist itinerant teachers were noted (see Table 4), but few details were reported.

Although the few local programmes operating in 1981-83 made no significant overall impact, the 'integration' and 'mainstreaming' policies to which many of the more developed countries are now committed were widely accepted among the project's contacts as desirable and appropriate long-term goals. Seychelles was working cautiously to implement them, and Botswana planned to develop its special education services to keep their pupils in or as close as possible to regular classes.

However, the other ten governments (remembering that Somalia had no services) did not accept that giving priority to pupil support programmes over special schools or units was a realistic option for their current planning. Indeed, if the emphasis for new services for visually handicapped pupils was on units (with a support function) rather than separate schools, it was generally the opposite for services for mentally handicapped pupils, and only slightly less so for those with hearing or (except in Kenya) physical handicaps.

These policies seemed generally supported by the limited information obtained on the views of parents of handicapped children. They considered their children would be better served in a special school, or in some circumstances a special unit, than by a support programme. Their views were often realistic considering the pressures then on ordinary schools and the resources available to them.

Teachers in the larger centres in the sub-region were sometimes exposed to outside evangelists preaching 'Full integration now'. Some local critics were perhaps a little hard on those speakers whose intentions were better than their knowledge of the sub-region. However, they seemed fully justified concerning the occasional professional supporter, and sometimes seller, of often expensive assessment or teaching programmes designed to help educationally handicapped children in countries with different cultures, school systems and languages of instruction, and therefore unsuitable for use in the sub-region.

3

Recognized special education services

The administration of special education

Every education system is shaped by and administered within the policies laid down by its national government, as administrators interpret and apply them with the funds allocated for this purpose, and by the associated inputs from influential non-government ethnic, religious and other special-interest groups. Recognizing the importance of these administrative environments in determining the character, effectiveness and efficiency of the education and other services provided for handicapped young people, the Project's first sub-regional seminar (July 1981) involved senior government officers responsible for planning and administering these services, and the topic was on the agenda.

The information gathered pointed up clearly the wide variety of policies and structures within which special education services operated, some implications important for their work and the limited attention which the whole topic had generally been given in government planning. This review notes some major characteristics of the administration of these services in 1981-83 and their implications for the education of handicapped young people.

The generally minor role of governments and the major roles of churches, parent groups and some other special-interest organizations in pioneering special education services has been noted. Government involvement in planning, financing, administering and actually providing these services steadily increased, until by 1981 all the associated governments recognized their final responsibility for them and all except Somalia were involved with them. However, the range and the extent of their responsibilities varied considerably in two separate though related domains (see Table 8).

One key point was the Botswana Government's active planning with help from SIDA consultants for a coherent national special education programme, a task which Lesotho, Mauritius Swaziland, and Uganda had not begun.

Of the six other countries which had both government and non-government services, Kenya, the United Republic of Tanzania, and Zambia were the converse of Uganda in that their governments each clearly had the major administrative role. Ethiopia, Malawi and Zimbabwe had intermediate ratings. Seychelles' pattern probably reflected its small size and population as well as its government's firm commitment to develop services for disabled persons, and it may remain unique, though the Somali government expected that it would have to initiate itself the services it hoped to see developed.

Table 8. Relative government and non-government agency involvement in providing and administering special education services

Services	Administrative involvement				
	Minimum	Government involvement			Maximum
	Maximum	Non-government agencies involvement			Minimum
Non-government only	Lesotho Swaziland	Mauritius	Botswana		
Both government and non-government	Uganda	Ethiopia Malawi	Zimbabwe	Kenya United Republic of Tanzania Zambia	
Government only					Seychelles

Some of the staff allocated by governments to administer special education services (Table 9) had related specialist qualifications and/or experience. It must be said, though, that some of the staff concerned lacking this background brought an extensive educational experience and proven administrative competence (including the skills of working with staff with specialist knowledge) which enabled them to contribute effectively. Table 9 does not show the further progress made over this period by Kenya, the United Republic of Tanzania and Zambia in strengthening their related staffing resources.

Apart from a few full- or part-time posts at regional level in Kenya and the United Republic of Tanzania, all the positions shown were located in the central offices of the ministries responsible for first-level education. One unique and reportedly effective variant was the Malawi policy under which the director of its training programme for teachers of visually handicapped children, which was provided by a non-government agency, was also the director of the government's special education service for these children, provided by fifteen units located in selected schools throughout the country. In this capacity, he visited the units and their host schools, and contributed professionally to their administration and to policies for their development.

The general congruence between the data on each country in Tables 8 and 9 is clear. A comparison with the country ratings in Table 6 for the actual availability of full-time special education places in terms of estimated needs, however, shows that, if Seychelles is omitted, the relationship between the level of government overall involvement and the actual availability of services was far from direct. Consideration of, say, Lesotho and Swaziland or Kenya and the United Republic of Tanzania will make this point. Geography, history, politics, economics and social factors have been important, but less than the professional environment in which special education services operated and the potential quality of their programmes.

Even in the 'minimum-involvement' countries, any non-government agency which provided special education operated within the policies which the government of its country set down for the work of all private schools. These policies might be modified to meet the obviously different circumstances of a special school, but in general this group of countries had little by way of separate policies and codified administrative procedures relating to special schools. In Ethiopia, pupils at a school for deaf children had to attempt the annual examinations set for all pupils to determine eligibility for promotion to the next standard or grade. Results were interpreted with the flexibility needed to allow the school to make the best possible provision for them.

Table 9. Government staffing provisions for the administration of special education in 1981 and 1983

	Staff with recognized delegated responsibilities for administering special education							
Country	None below the officer responsible for at least all first-level education		One officer part-time		One officer full-time		Two or more officers full-time	
Botswana	1981				[1]			
Ethiopia	1981					1983		
Kenya							1981[4]	1983[4]
Lesotho	1981	1983						
Malawi			1981	1983				
Mauritius	1981	1983						
Seychelles			1981			1983		
Somalia	1981			1983[2]				
Swaziland			1981	1983				
Uganda					1981	1983		
United Republic of Tanzania							1981[4]	1983[4]
Zambia							1981[4]	1983[4]
Zimbabwe	1981					1983[3]		

1. In 1983, Botswana planned to establish one full-time position in 1984.
2. Established in anticipation of action to introduce special education services.
3. An innovative appointment of an experienced senior educational administrator.
4. All or some staff were known to have relevant qualifications and/or experience.

In general, each school in these countries selected its own pupils on its own criteria, developed its own specialist curriculum, appointed its own staff and found ways of training them. It was also responsible for funding its buildings, equipment, staff and operating expenses from its own resources and from government and non-government grants. In practice, all the governments in the sub-region helped non-government schools to a greater or lesser degree with their teacher staffing, but the special schools in the minimum-involvement group operated largely in professional isolation so far as their teaching programmes were concerned. Their governments were not involved in specialist teacher training or curriculum development, and had either no or very little staff with any continuing responsibilities concerning special educational services.

In these circumstances, the quality of the total teaching programme which each special school offered depended largely on the competence of its head teacher as an educator and an administrator, and on the input of its governing body.

At the other end of the spectrum were three larger countries Kenya, the United Republic of Tanzania, and Zambia and the smallest in the sub-region Seychelles. The Seychelles Government was active in developing its special education and related services for disabled children, and its special education programmes were well staffed, housed and equipped. But because of its small size it could not, and in the foreseeable future will not be able, to provide comprehensive initial and continuing training for their teachers. It may well also need the co-operation of outside consultants in some aspects of its curriculum development and programme evaluation. The government, its ministry and its special-education teachers appeared to share a commitment to provide the best service they could, and the country seemed to have adequate resources to maintain movement towards that goal. Its one special-education officer was certainly busy, but not more so than each of the officers in the Kenya, Tanzanian and Zambian central ministry units: furthermore, the Seychelles officer had the great advantage of fairly easy contact with all the country's special-education staff, who were then working on the main island, Mahe. If the proposed extension of special education services to at least one other island has since occurred, that officer will face to a minor degree one of the serious impediments to the effective work of central ministry units and special education teachers in all the larger countries, communication difficulties.

The three larger countries had prepared the elements of a national development plan for their special education services to provide the guidelines for progress as resources became available. Zambia and the United Republic of Tanzania had published their plans as official government documents. Kenya had not then taken this formal but important step. All three governments were substantially involved both in providing special education services and in setting up the framework in which non-government services (particularly important in Kenya) would work. They all offered several teacher-training programmes and were actively involved in curriculum development. Within the limits of their restricted resources, their special-education officers informed and advised their senior officers, arranged in-service training, helped parents who consulted them, and were involved in appointing staff and evaluating teaching programmes, new and proposed buildings, and equipment. They consulted with other ministries, with external development agencies (including Unesco) and with a wide range of non-government agencies providing services to handicapped persons.

All these duties were performed against the background of the unexpected crises and demands faced by government central offices the world over. What suffered were staff contacts with actual special schools and units, particularly those away from their central office. This was due partly to the pressures just noted and, in most countries, to limited funding for official travel and for the occasional use of telephones.

This administrative situation in the central government offices by late 1983, from the least to the comparatively best placed, can be summarized thus: no effective administrative focus (Lesotho and Swaziland); a stated focus but clearly insufficient staffing (Botswana, Ethiopia, Malawi, Mauritius, Swaziland but see above Uganda and

Zimbabwe); and a useful focus and stronger but still inadequate staffing (Kenya, Seychelles, the United Republic of Tanzania, and Zambia).

The varied and sometimes serious consequences for the efficient and effective administration of special education were occasionally compounded by a particular stiuation which did not exist or, if it did, was certainly less common for the regular primary and secondary services. Very few if any of the professional educators holding the top-level positions in ministries and departments of education had worked in special education services or had had any close links with them as teacher, principal or administrator. They tended to view special education as a discrete entity, having some growing links with, but not really an organic part of, their country's core education service. The unintended consequences of this understandable situation was to lengthen the time needed for special education to earn that justified status.

A complementary and equally serious situation resulted from the almost complete lack of a continuing and informed special education component in educational administration at the provincial/regional level in some larger countries and at the district level in all countries (except the smallest which could be administred effectively from one central office).

The practical implications of this gap became steadily clearer as it was raised by and discussed with many people whom it affected. They saw its consequences as considerable and all negative. The lack of an officer with an adequate background in special education able to contribute to the work of a district education office:

Limited its ability to assess special education needs in its district and to conduct valid correspondence and negotiations on these needs with the central office.

Could adversely affect local actions and decisions on such varied matters as the siting, staffing and equipping special schools and units, interaction between these services and ordinary schools, guidance and support for teachers with handicapped children in their class, pupil assessment and placement procedures, in-service training for special education staff, identifying potential special education teachers, and so on.

Provided very few, if any, opportunities for principals and teachers in special education services to review their work, including its specialist aspects, with an education officer sufficiently knowledgeable to be able to assess their strengths and difficulties and to give helpful advice, and take any necessary action.

Restricted informed guidance for principals and teachers of ordinary schools with a special education unit attached (several cases were reported where a unit had been moved to inferior accommodation, deprived of its special equipment or ostracized socially by other teachers and pupils and where the local education officers had not thought the problem important or, if they had, had not been able to correct it.

Provided no informed local spokesperson for discussions and action with groups such as the administrators of non-government special schools, special interest groups, community service groups, or disabled persons and their families.

As a result, the education services did not contribute as well as they could have done to the development and the work of many of the exploratory community-level projects offering support and guidance to families with handicapped children.

This partial list identifies some of the significant differences between the professional environments of most of the special-education teachers in the sub-region and those of their counterparts in more developed countries. The full value of services such as these as basic features of the administrative framework becomes obvious when they are not provided.

It is understandable that in the face of obvious and unmet needs for more special education services, the associated countries have given considerably higher priority to providing school places and teachers than to building the administrative frameworks which would support these services and contribute to their effective work and sound development. The consequences of this imbalance at both central and local level were considerable and growing. They could not be costed precisely, but the inadequacies noted certainly contributed to inefficiencies and expense within the special education services themselves and to their limited interaction with ordinary schools and other services. Strengthening the administration now seems essential for effective action on these matters and thus for more efficient special-education programmes.

Finally, it should be recorded that some special education staff in central ministry offices identified the establishment of national special-education administration networks with an adequate central office component as an important area for development. However, of the many others (educators, persons from related disciplines, other interest groups and parents) who were asked their development priorities for special education, very few mentioned better administration; and those who did so did not place it high on their list. Information available on progress up to early 1985 suggests that the momentum gained in 1981-83 has been continued, with some additional administrative full- or part-time positions established. However, no comprehensive planning to develop the district-level administration networks was noted.

Assessment and selection policies and procedures

The limited facilities for educational and related assessments for schoolchildren who have learning difficulties were not much better than for pre-school children. Five limited official or government-supported services were noted.

The Lady Northey Clinic in Nairobi, financed by the Kenyan Government, offered assessments and counselling based on paediatric, psychiatric and psychological studies, but it did not have staff able to conduct detailed useful educational assessments. It would advise on such matters as a child's need for placement in a special school or unit, but it could not usually offer guidance on teaching programmes for individual children. The Zimbabwe Psychological Service continued to focus on selecting children for admission to or withdrawal from its country's sixty special classes and one residential school for mild to moderately mentally handicapped children, and also had some responsibility for placements in the Zimcare Trust special schools for more seriously mentally handicapped children. However, its thirty or so staff assisted other educationally handicapped children within the limits of their time and relevant experience. The Seychelles Government employed a psychologist with some educational background as a consultant for its one special school for exceptional children, and the Zambian Government's special-education officers had formal responsibilities in assessing children proposed for enrolment in its special education programmes. JCHEP, with government support, assessed school-age children.

Other assessments were provided by university and teachers' college staff, education officers, hospital staff, organizations such as the Royal Commonwealth Society for the Blind, and some medical practitioners, psychologists, and therapists and teachers working privately. They were as thorough and useful as time and experience permitted.

In the absence of other services, the teachers of special schools and units made their own assessments. These varied considerably in their content, presentation and later use. Some were useful bases for planning teaching programmes and for later reassessments; others were no more than short descriptions of observed disabilities. Pupils' intitial assessments were quite often not available, and the records on long-term pupils could be scanty.

Conversely, some of the special schools and units were developing continuing assessment programmes focusing on children's progress in mastering defined skills.

These were useful in charting pupils' short and medium-term progress and reviewing teaching programmes; where possible, they involved parents and persons from related disciplines to form what were in effect useful multi-disciplinary assessment and planning teams. Their progress was hampered by the general shortage of speech therapists and psychologists experienced in contributing to educational programmes and by the absence of any visiting teacher/school social work services, but their programmes were paying clear dividends in terms of the effective use of teachers' time.

Two important government initiatives were under way. The Mauritiun Government was planning to establish a school psychological service. The scope of its duties beyond psychometric work was not then certain, but it marked the government's first major step in providing a service for educationally handicapped children. A clearer statement was available on the second initiative, the decision by the Kenyan Government and the Danish International Development Agency (DANIDA) to establish an institute for special education involved in teacher education, curriculum and materials development, as well as pupil assessment. The Kenyan Government had already been working to improve the quality of the assessments available to its special education teachers and to strengthen their own assessment ability, important for those working outside the urban areas. The institute had some district assessment centres for this purpose, staffed by selected and trained personnel operating in 1985.

Most pupils were selected for admission to, or withdrawal from, a special school or unit by its own staff, sometimes with the formal concurrence of government education officers or, as in Zambia, their active involvement. Each of the private Zimcare Trust's eight special schools for mentally handicapped pupils was served by a selection panel comprising its head teacher, a government psychologist, a Trust education adviser and other specialists where necessary. Parents were involved in the panel's decisions. Considered overall, selection decisions sometimes gave considerable weight to social factors, an important point for school populations, which will be considered later. Some special schools administered by, or closely associated with, a particular community group, usually a church, gave preference to children associated with that group. Most of the pupils admitted to special schools or units remained enrolled with them until they transferred to another special education programme or completed their first- or second-level education. This reflected the general lack of pupil support programmes.

Curriculum development

In those countries where governments were less involved in administering special education, their special schools and units produced and used their own curricula within whatever guidelines their government might set. Programmes were based on their own staff's views, consultations with any groups and individuals who might help, and consideration of materials produced in other countries. At the other end of the spectrum, three governments, those of Kenya, the United Republic of Tanzania, and Zambia, had extended the work of their existing curriculum development units to include their special education services. The Mauritian Government was planning to implement the same policy. The units offered opportunities for teachers, with teachers' college and university staff, education officers, curriculum specialists and other invited persons (sometimes including parents) to review the content and presentation of teaching programmes for children whose handicaps necessitated significant deviation from the programme followed in regular classes. In some cases, their work extended to preparing appropriate teaching materials.

The units offered opportunities for moulding appropriate teaching strategies from other countries with those generated in their own country, an important advantage which was augmented for Zambia by the secondment of a SIDA-sponsored expert to its unit. The Kenyan unit was expecting to gain a similar benefit by the initial involvement of some expatriate staff with the new Institute for Special Education. All the units were already major contributors to improving the quality of the tuition actually provided in special schools or classes. Effectiveness was, however, restricted by budgetary limitations, by funds available for teacher in-service training and by the general lack of effective local professional supervision. Nevertheless, they were already important elements in their country's special education programmes with much to offer to other countries in the sub-region. Through its sponsored study and observation tours, the project was able to arrange several very profitable visits for this purpose.

Common elements in special education programmes

The different branches of each country's special education services were not usually closely linked in their work, and no two countries provided identical environments for them. However, the project staff had the unique opportunity to study a significant cross-section of them across the sub-region, and could see that their work and their challenges had much more in common than the people associated with any one service, or familiar only with those in one country, could have realized. Noting some of these common elements here saves unnecessary duplication and provides a useful and desirable balance to the emphasis on each section's particular work and challenges in the later discussions of the individual category programmes which were then available.

Buildings. Very few, if any, special units enrolled children below school age, and the limited provision made for them at special schools is discussed below. What can be said here is that most of the fortunate minority of those children needing special education who found a place in a special school or unit were admitted when they reached school age or later. On enrollment, they usually found themselves working in a group of eight to twelve pupils, sometimes a few more, in a classroom with at least minimally adequate space, light and acoustics. Some rooms were substantially above that level in one or more of these respects. While classrooms were often short of facilities for storage or wall displays, most did not hinder children's learning, and some teachers had worked effectively to make the most of rather austere surroundings. Their use of colour, inexpensive local materials and a simple display table made an obvious difference.

However, there were some unfortunate exceptions: some rooms were so poorly lit or had such bad acoustics that any children using them would be disadvantaged even if they did not have a visual or hearing handicap; some schools for physically handicapped children had building faults such as high steps, steep ramps, a lack of necessary handrails, or unadapted toilets which seemed to reflect, in different degrees, planning mistakes, limited maintenance funding and staff priorities for the use of what money was available.

The rather high incidence of apparent design faults in quite new buildings in several countries suggested that planners and architects could have benefited from better access to relevant technical information. On the other hand, some school staffs were keenly aware of the inadequacies of their buildings, built twenty or thirty years previously in permanent materials, e.g. brick, stone, breeze-blocks or concrete.

Some units had found themselves evicted from their designated classroom by the head teacher of their host school who then used it for other purposes. One unit was incarcerated in a small and poorly lit storeroom while another, a unit for visually handicapped pupils, in a murky cellar, where it remained for several years. Both these cases reflected the limited involvement and status of special education in the local administration of education services.

Links with other schools: The project knew of two special schools, one entirely residential and the other for day pupils, with no more than ten pupils, and one, not necessarily the largest with an enrolment of at least 300, in the sub-region. Some of the larger schools had quite outgrown their existing sites. The principal of one of these was hoping that, in the event of relocation, it would be re-sited much closer to an ordinary school with which it could, in time, develop some constructive links. A very large proportion of the existing 130 or so special schools, including at least one opened since 1980, were on rural sites which precluded these links and indeed any contact with the outside world other than through planned. This isolation clearly restricted pupils' opportunities to learn through their own experience about the outside world and how they could best live in it.

Some special schools for visually or physically handicapped pupils had rewarding two-way interchanges with an ordinary school. However, physical proximity by itself was not enough. One principal of an ordinary school refused to open the gate between it and a neighbouring special school even for some playground contact. People who were keen to see good contacts develop stressed the importance of a school's staff developing an agreed proposal and ensuring the support of their controlling authority before it ventured firmly into this field, where simple difficulties and misunderstandings could be all too easily magnified through lack of confidence or knowledge. They noted also the considerable importance of positive encouragement for these liaisons by local education officers, and that this was often missing. There were certainly many opportunities for more and closer links, but some really isolated special schools will always be handicapped in this aspect of their programme. The staff of the special schools and units in rural areas usually had only very occasional contact with other teachers in their particular speciality or with related teacher training or ministry staff. One sole-charge unit teacher in an isolated small town said he had had no such contact for four years.

There were also, quite clearly, opportunities for better liaison between the specialist teachers of some special education units and the principals and regular teachers of their host schools. These contacts would give the unit pupils the opportunity to be in a real sense a part of their school's total programme. Where this was a shared aim, there were certainly more opportunities for the handicapped children and their schoolmates to gain through real experiences a constructive appreciation of each other as individual people rather than mere stereotypes.

Links with parents. Some effective programmes aimed at developing working partnerships with parents were located. As might be expected, most were in larger towns or cities where the majority of the pupils lived in the community. The teachers involved in these programmes shared their colleagues' experiences elsewhere that some parents were not interested and others proved unable to work co-operatively in such a partnership. Nevertheless they considered their programmes worth continuing. Teachers at some similarly-placed schools and units gave little or no emphasis to such programmes.

The teachers at rural special schools or at units with hostels faced the hard fact that many of the parents of their boarding pupils lived several days' hard travel (or further) from the school, and might never visit it because of the cost involved or because they had more pressing calls on their time. Education budgets made little or no provision for home visits, but some interested teachers kept in contact with at least their closer families. The head teacher of one rural boarding school was working with local education and health staff to hold regular clinics in several centres to meet prospective new pupils and their parents, advise the latter on any skills their child would need to master before admission, and on how to teach them, and discuss pupils' progress with parents who could not visit the school. Other head teachers may have been developing this valuble service, or something similar but no relevant national policies were identified.

Enrolment policies. In some countries, further progress in this field will depend partly on the enrolment policies of their residential special schools. The project did not investigate the point in detail, but it learnt that a significant number of children were travelling past one or more special schools which served children with their particular disability because they attended a more distant residential school related to a particular organization, usually a church, with which their family was associated and which had given them some priority for enrolment. While this quite understandable practice continues, teacher-pupil links will remain affected to some degree. The same result obtained in countries which wished to encourage an ethnic mix in their residential schools.

Another important element in the enrolment policies of an unknown but probably considerable proportion of residential special schools was the weight given to children's home circumstances when selecting new pupils. Traditionally, children who needed alternative care found it in their family and community networks. This help was often still available to those children who were living in their home district but it was less accessible to families which had moved elsewhere, often to an urban area housing people from different and often distant home locations. Organized social services to help distressed families were usually also limited in these communities. A disabled child living with a distress family who needed but was not finding alternative care had an advantage over children who were not handicapped if his case came to the notice of a residential special school which gave some weight to a child's family background when selecting new pupils. Providing this care had been, literally, life-saving for some disabled children but it was also one of the major causes for the comparatively high proportion of pupils in residential special schools of all categories whose educational handicaps alone would probably not have won them admission. Their presence offered those schools and the nation's educational planners particular challenges which will not be easily answered.

Curriculum. As would be expected in a sub-region where admission to second-level education was usually through success in a selective academic-style examination, most of the pupils enrolled in special education programmes did not proceed to that level. Their special schools or units served them from their first enrolment until they finished their formal education. They left school with no formal qualification except for the few who passed the second-level entry examination. The teaching programmes provided by the special schools and units were based on those provided in first-level schools and modified where this seemed necessary according to pupils' handicaps.

Many teachers at the project's seminars commented that most of their pupils would not move on to a formal vocational training programme; they would go without any further orientation to live in the adult world where most people were neither handicapped nor strongly disposed towards helping those who were. These senior teachers felt that their school's programme should therefore do all it could to prepare their pupils for this move into the everyday world. They accepted that they needed to give their older pupils more planned opportunities to learn the social, language and work skills and the general knowledge which would best help them in this transition.

Observations and discussions throughout the sub-region suggested that this was an important and generally a valid comment. There were some positive and rewarding exceptions, including the agricultural-skills programme being developed at the special school for mentally handicapped children which Margaret Chege describes. The schools which were considered to be contributing constructively in this area typically:

Expected their older pupils to take increasing responsibility for their own work, conduct and welfare so that as school leavers they would meet as well as they can the standards required of young adults at work and in their home and social life.

Provided positive and age-appropriate reinforcers for the responses desired in these matters from the pupils concerned.

Included in these programmes situations which will encourage pupils to learn the skills required for effective work in groups.

Emphasized literacy, numeracy, self-care and independence skills related to work situations and adult living.

Ensured, in the case of boarding schools, the opportunity for their pupils to practise and perfect these skills before they leave school through planned real-life training experiences in the outside world.

In general, though, special schools and units could have been doing more in this whole important area without needing many additional resources if any. Opportunities to take more responsibility for their own care in a school hostel, for planning and completing agreed tasks to an acceptable standard, to learn the basic social skills and conventions of their society and to mix with non-handicapped people in these situations could often have been provided, as they sometimes were at quite isolated schools, given a staff commitment to do so.

Equipment. There were other areas, though, where the special education services were hampered by shortages of materials or equipment. These shortages could also be serious for ordinary schools, but they were a double deprivation for children who were already handicapped. There was no way in which special schools and units could be equipped to the level possible in wealthier countries but some had met their major needs for books, paper, furniture and other materials only by actively seeking help to supplement what their government could provide. For one reason or another, some others had not had the same success, and their pupils lacked even minimally adequate supplies of books, writing materials and specialist equipment.

Related health services. As has been noted, the availability of general and specialist health services to pupils receiving special education depended on the country they lived in, the distance between their school or unit and a major city and their parents' ability to pay for private medical care, if available. The staff of several schools where this matter was discussed had no difficulty in identifying pupils with visual, hearing or physical impairments whom they considered could benefit, in some cases substantially, from specialist treatment which was either just not available or else available only to children with an even greater need. At a simpler level, there were certainly children at special schools or units who could have progressed reasonably well in an ordinary class had their disability been identified and tackled when they were younger. In many cases, this would not have required specialist care.

Staff training. The provision of training for staff involved in special education is important enough to warrant its own review (see pp. 77 et seq.). However, it is worth noting here that there were clearly identified needs to provide teachers with more opportunities for in-service training and to establish training programmes for the residential and other non-teaching staff at all residential schools.

There has inevitably been some emphasis in this assessment on those matters which seemed to need some attention, and this emphasis will continue throughout the chapter. This is, therefore, a good place to say that of the sixty or more special schools and units which the author visited between 1981 and 1983, some of them several times, the great majority seemed generally cheerful and positive places. The children at a few seemed withdrawn or demanding or unsettled to a degree which, making every reasonable allowance for their handicaps, my voice and manner as an unexpected New Zealander, and the fact that I was only a short-term observer suggested that their school life might be undesirably restricted or unrewarding. But they were a small minority. Most of the visits were stimulating and positive despite any clear shortcomings in buildings, equipment or programmes. At some schools where the senior staff seemed short on the skills and knowledge needed for effective leadership, the pupils seemed generally at ease and interested in life outside their classrooms.

The reviews which follow discuss in turn the services then available for children with visual, hearing, physical or mental handicaps or who have been identified as multi-handicapped.

Services for visually handicapped pupils

As Table 4 showed, of the 14,580 children enrolled for full-time special education in 1981-83, some 3,450 were classified as visually handicapped, 3,900 as hearing handicapped, 3,450 as physically disabled and 2,300 as mentally handicapped. This allocation presumably reflected the early emphasis on services for children with sensory handicaps, as occurred in countries now more fully developed.

The services reported to be available for visually handicapped children and older students in 1981-83 are summarized in Table 10.

Pre-school services. An unknown number of visually handicapped children attended the wide range of pre-school education services and day-care programmes available in the sub-region but, as the Table 10 indicates, only two countries (Kenya and Mauritius) reported pre-school educational programmes which received some consistent specialist input. In Kenya this was provided by the staff of some of its special schools and in Mauritius by the advisers who helped the teachers of its small private pre-schools to cater for their handicapped pupils. Although [illegible] details were obtained, some of the young children being helped by the community rehabilitation programmes already discussed were visually handicapped and others may have been helped by the support organizations for the blind which were active in several countries in the sub-region. However, most blind and partially-seeing young children and their families were not reached by the existing special education and support services. This was true also for the other special education programmes discussed later.

School-based services. Table 10 reflects the steady move over the past twenty years or so away from the earlier complete reliance on separate special schools, many of them largely residential, and the development of specialist teaching programmes for visually handicapped pupils at ordinary schools. These programmes were of two kinds. The first, the special units, comprised one or sometimes two specialist teachers with their classrooms. Those based at primary schools provided the initial education for the new entrants, who moved gradually to work in a regular class with continuing support from the unit staff as their skills in braille developed. The specialist teachers in the secondary school units supported their pupils in their individual study programmes. Some units had an associated hostel for pupils from the more distant parts of the areas they served. The second programme is listed in Table 10 as 'Supported integration'. Visually handicapped pupils enrolled at ordinary secondary schools were supported by visiting specialist staff or by correspondence school services.

Table 10. Education services for visually handicapped pupils reported 1981-83

Country	Organized pre-school	Primary/All Age		Secondary			Total reported enrolments	Tertiary student support
		Special school	Unit	Special school	Unit	Supported integrated programmes		
Botswana		-	1	-	-	-	21	Proposed 1983
Ethiopia		6	-	-	1(1)	-	532	Available
Kenya	At some special schools	5	1	1	-	6(2)	967	Available
Lesotho		-	1	-	1	-	25	-
Malawi	Available	2	14	-	1	-	215	
Mauritius	At some regular pre-schools	1	-	-	-	-	35	
Seychelles		1(3)	-	-	-	-	2	-
Somalia		-	-	-	-	-	-	-
Swaziland		1	-	-	-	-	75	-
Uganda		1	15	-	-	1(1)	135	-
United Republic of Tanzania		3	13	-	6	1	476	Available
Zambia		5	-	-	6		393	
Zimbabwe		2	9	1(4)	2	Available	590	Available
Total		27	54	2	17	8+	3 466	

Note: Blank entries indicate the information was not provided. Some service may be provided in some areas. Dashes (-) indicate no service then provided.

(1) Supported by the nearby special school.

(2) Visually handicapped pupils enrolled at six regular secondary schools were supported by the Hadley (correspondence) School for the Blind and/or by specialist teachers.

(3) Seychelles then based all its special education programmes at one special school at the capital - Victoria.

(4) Separate section of a primary special school.

While special schools still enrolled some 80 per cent of the visually handicapped children receiving special education, nine countries relied exclusively or partly on units based at regular schools, and Seychelles was moving towards that policy. Only Mauritius and Swaziland provided education only at a special school, although Ethiopia's one unit programme at a regular school was an outpost of one of its special schools, and Kenya had only a handful of its 970 or more visually handicapped students enrolled outside its special schools. Up to 1983, it had given no firm indication of its future preference for special schools or units.

The investment in unit and pupil-support programmes at ordinary schools seemed to reflect two different but not necessarily conflicting policies. The first was to bring visually handicapped pupils as close as possible to the classrooms where other children were taught, to reduce the social distance between sighted and non-sighted children and adults, to help visually handicapped pupils prepare themselves better for life in the ordinary community and to enable more of them to live at home or, if boarding proved necessary, closer to their family than would be possible if the country relied primarily on residential special schools. Those advocating this policy believed it would prove less expensive per pupil than relying on special schools, though they may have under-estimated the cost of professional support services required for effective dispersed teaching programmes. The pioneer Malawi and Ugandan programmes exemplified this policy in action and in so doing reflected the practical commitment of the Royal Commonwealth Society for the Blind to the development of education services in eastern and southern Africa.

The second policy aimed to provide opportunities for academically able students to pursue a secondary-school education, with its possibilities for entry to those professions requiring qualifications not obtainable from special schools which based their work on their country's primary-school curriculum. Only Kenya and Zimbabwe had a separate special secondary school for selected blind students but Ethiopia, the United Republic of Tanzania, Zambia and Zimbabwe had fairly recently established units at ordinary secondary schools; indeed, all Zambia'a seven units and Ethiopia's one pioneer unit were at this level.

An unknown number of visually handicapped pupils attended ordinary secondary school programmes with or without some specialist support. Two organized support programmes were working in the sub-region. The Correspondence Education Department of the Tanzania Institute of Adult Education (a government institution) provided correspondence courses in selected secondary subjects for blind students preparing for national examinations. The department worked out of seven regional centre, and planned to extend its programme as rapidly as its funding allowed. Students at university and teachers' college were also assisted.

The second programme was provided by Hadley School for the Blind, based in Nairobi, which is the African outpost of the International School for the Blind, based at Winnetka, Illinois, United States. The school offers correspondence education at secondary level to eligible visually handicapped students living in English-using countries south of the Sahara. Provided it is sent copies of the necessary textbooks, it will send enrolled students this material in braille or recorded on cassettes, supplemented by material from its own braille library. It will assess and correct assignments and generally do what it can to support its students, some of whom also attend an ordinary secondary school. Hadley School also assists university students by brailling or recording their study materials and giving them access to its library. Most of its clients live in Kenya; in 1983, this group included some blind teachers it supported in their own work. It had already enrolled students from several other countries and aimed to extend this service.

Partially-seeing pupils at special schools. The special schools enrolled a surprisingly large number of children who could fairly be classified as partially seeing rather than educationally blind. These children had been enrolled in a special school, usually for one or both of two reasons: either they had failed to progress at an ordinary school, if they had attended one, or their home conditions were such that they needed care elsewhere and their impaired vision gave them access to the security of a special school, sometimes until they completed their formal education. Some special schools taught them through inkprint and other visual techniques as far as their sight and the school's resources of staff and equipment would permit. Others taught all their partially-seeing pupils primarily through braille. They explained their action as unavoidable, given their limited resources, and (in some cases) as sensible in view of these children's probable life-style after they left school and the risk that their sight might deteriorate.

These arguments may have had some substance for some more seriously impaired pupils, but there were certainly some children at special schools whose obvious visual abilities were not being used fully in their schooling and who were being taught, intentionally or not, to act as if they were more seriously disabled than was the case. There were also children at some special schools who could have managed at least reasonably well in an ordinary class given corrective glasses, an adequately-lit classroom and, if necessary, a suitable home placement. A further group could also have been taught through visual methods in an ordinary class given these conditions plus any necessary low-vision aid and some continuing specialist support for their teacher.

This problem was not so serious in those countries which relied primarily on special units, which at least gave their pupils the opportunity to work in an ordinary class with specialist support. The Malawi Director of Blind Education voiced the hopes of several senior colleagues in other countries with his plan for each unit's teachers to provide this support to the ordinary schools in its district as soon as the necessary funds could be provided. The units would continue to enrol those pupils needing more consistent help and the special schools would be able to focus on serving those educationally blind children who needed their comprehensive services.

The partially-seeing pupils at several residential special schools in the United Republic of Tanzania and Kenya visited by the project staff included a noticeable minority of albino children. Inquiries suggested that this situation occurred in other associated countries and that while many of these children had a moderate visual-impairment, their enrolment was often due at least as much to the social ostracism or outright rejection which they faced in their home community or to its lack of necessary health services. Their predicament reflected the strongly negative attitudes towards obviously disabled children which were reported as still powerful in some parts of the sub-region. A residential school may have been their best available refuge, if one were needed, until their distinctive impairments became less disturbing to other people, but it was really appropriate only if their visual disability warranted it. Mituki's case seemed typical:

A third child and first daughter, Mituki was born at home; her parents soon noticed her unusual hair, eye and skin colour which they had not seen before (albinoism is a fairly rare condition in eastern Africa) and mother's parents, who lived nearby, found her difficult to accept into their extended family. Her own parents treated her kindly but coolly. Her vision was not assessed until after she enrolled at the village primary school when she reached seven years of age.

School was hard on Mituki. She felt ostracized and her poor sight seemed to be limiting her progress. A proper visual assessment was carried out and her parents were told that she would fall steadily further behind at the local school and be a misfit there. Their church pastor found her a place at a residential school with which the church was associated.

One year later and nearly ten years old, Mituki was one of three pupils with some useful vision in a class of eleven. She had corrective glasses and with them could recognize a few words in large print. She was being taught braille because her teachers, who were encouraging her to make full use of her limited vision, considered they could offer her a better education through that medium than through their available inkprint resources.

Mituki went home for the longer school holidays, a round trip of about 300 kilometres. She said she liked to see her family, but she liked life at school better than life at home.

Curriculum. In general, the existing teaching programmes gave their pupils a chance to learn basic literacy, numeracy and self-care skills, something of the world about them, and probably some simple crafts. They almost certainly had music in their programme, some kind of physical education and simple mobility training, and religious education if it was included in the approved curriculum for ordinary schools. If they did not go on to secondary education (and most pupils did not), they might have the opportunity to learn some basic vocational skills before leaving school. There was a clear need, however, to review the whole curriculum for senior pupils to ensure that it helped them as much as possible to prepare for a successful transition to the adult world they would face immediately after school.

A very clear need was also identified for a considerable expansion and upgrading of the mobility training available to more seriously visually disabled children and adults. Until at least 1981 most of these children did not have access to a planned mobility programme continuing throughout their schooling. They graduated without, for instance, any training in using a long cane. Action has since been taken in Kenya (and possibly elsewhere) to begin filling this major gap.

The pupils who studied at secondary level probably focused on subjects where their visual disability was the least possible impediment to their work (language, religious education, mathematics, perhaps history or geography), probably not science subjects. They may not have had much choice in practice. If they were aiming to sit their national secondary school examinations, they usually had to offer four or five subjects, and this may well have been the total number their school could provide for them. By and large, their secondary-school education was essentially academic and not related in any direct way to the vocational, social and mobility facets of post-school life. Only a fortunate minority of the visually handicapped pupils educated through braille and tape recorders would have access to brailled material and the secure use of a tape recorder once they left school.

Equipment. The restricted study options available for visually handicapped pupils was partly a consequence of the limited funds available in both government and non-government financed services for the purchase and maintenance of supplies and equipment. There may have been some opticons[1] and computer-based devices to improve receptive or expressive communication for visually disabled persons operative in the sub-region, but, they were never mentioned nor were they seen by the project staff. Some special schools and units had not for several years had a minimally adequate supply of such necessary equipment as brailling slates and machines, braille paper or (given electricity) a thermoform.

Many schools and units had equipment which was broken and which they could neither repair nor replace. The external aid organizations which still provided a considerable proportion of this equipment usually expected the recipients to arrange and finance maintenance. This was often not adequately planned and budgeted for, resulting for instance in silent equipment in some braille presses while blind children waited for reading material.

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[1] An opticon is an electrical device which translates printed material, read line by line by a hand-held optical scanner, into patterns of 'taps', replicating each letter's shape, by a grid of blunt-nosed pins on the touch-sensitive tip of one of the reader's fingers.

Few schools or units had a staff member trained and equipped to carry out the simple repairs maintain most brailling machines. Servicing by outside contractors was usually considered unnecessarily expensive if indeed it was available and could be paid for. It was sad to see a class of eight or nine senior pupils sharing two braille machines of different brands, and one of them itself not working properly and three braille slates, while six or seven out-of-service machines sat forlornly in the cupboard. It was equally sad to visit a unit which could not use its thermoform effectively because the electricity supply from the main school building to its detached classrooms had been promised for some considerable time but not provided.

The result was, of course, that some educationally blind pupils were additionally handicapped. These problems were compounded if their school or unit lacked braille transcribers and basic school texts for their studies. Pupils in units were particularly disadvantaged if they had not received their braille copy of a basic textbook which their sighted classmates were using.

Future pattern of service. There was a commonly-expressed hope that no further large residential special schools would be developed, particularly in rural areas, and a particular preference for all younger visually handicapped children to receive their special education as close as possible to their own homes, and in smaller facilities than the fairly large junior sections at most residential schools. However, while there was general support for this policy, many of the teachers working in units considered that they received barely adequate and sometimes clearly inadequate professional support. In 1981 and 1982, the teachers in one country had to rely on a braille unit in a non-neighbouring country for essential textbooks in braille. In other cases, advisory staff were few and far between. This is a particularly serious handicap if the specialist teacher has had only limited experience, or if the local head teacher or administrators are not very supportive.

Nevertheless, the units continued to increase in number, and they had their real successes. The project staff visited one resource centre based at a rural school in Malawi where the one or two visually handicapped children had received their braille copies of a new school textbook from the national braille press before their sighted fellow pupils had received their supply, or their teacher his. The blind pupils had genuine status in that class as they read the text to their classmates and teacher.

If the existing and new units could be staffed to accept the responsibilities for supporting visually handicapped pupils enrolled in ordinary classes which the Malawi proposals envisaged, they would offer the first significant programme of this kind in the sub-region for pupils who must otherwise receive their education away from their community school.

Services for hearing handicapped children

The situation concerning special education programmes for hearing handicapped pupils is shown in Table 11. Zambia's current national plan envisaged a special school in each of its nine administrative regions supporting units in both primary and secondary schools as the major special educational placements for most hearing-handicapped pupils. The United Republic of Tanzania was the only other country with a reported interest in developing a nationally integrated programme involving both special schools and units. Comparison of enrolments with figures for usually handicapped pupils is complicated by substantial enrolments of children with partial sight or hearing.

Pre-school services. The only specialist service reported as helping hearing-handicapped children attending ordinary pre-school services was the Mauritius project already discussed.

Table 11. Education Services for Hearing-Handicapped Pupils (reported 1981-83)

Country	Organized Pre-School	Primary/All age		Secondary		Reported Pupil Support Programmes	Total Enrolments
		Special School	Unit	Special School	Unit		
Botswana	-[1]	1[3]	-	-	-	-	12
Ethiopia	2[4]	6	-	-	-	1[5]	339
Kenya	*	19	2	-	-	1[6]	2 000
Lesotho	-	1	-	-	-	-	8
Malawi	1[4]	1	-	-	-	-	110
Mauritius	2[7]	1	1	-	-	-	86
Seychelles	1[4]	1[8]	-	-	-	*	20
Somalia	-	-	-	-	-	-	-
Swaziland	1[4]	1	-	-	-	-	40
Uganda	1[4]	2	-	-	-	*	150
United Republic of Tanzania	*	4	-	-	-	*	274
Zambia	1[9]	2	6	-	3	*	285
Zimbabwe	-	3	2	-	-	*	574
Totals	9	42	11	-	3	2	3 898

1. A dash (-) indicates no service then provided.
2. An asterisk (*) indicates no information then available. Some service may have been provided.
3. Closely associated with an ordinary primary school.
4. Through early enrolment at a special school.
5. Twenty pupils at a 'technical' school.
6. Then provided by the Kenya Society for the Deaf.
7. At the special school, or at an ordinary pre-school with professional support from the Mauritian Joint Child Health and Education Project (MJCHE) (see Chapter 9).
8. Two classes at Seychelles' non-categorical special school.
9. A pre-school programme involving parents and supporting their work at home with their deaf child was provided by the Ministry of Basic Education at the Speech and Hearing Clinic at Lusaka University Hospital.

Making every allowance for all the likely available formal and informal pre-school and rehabilitation programmes, the reality was that the vast majority of pre-school children with hearing handicaps did not get any trained help in learning communication skills. They missed opportunities for intellectual and social development which early appropriate teaching could have offered them, and most were no better off when they reached school age.

School-based services: Special schools provided about 96 per cent of the available special education places for hearing-handicapped children, and there was no discernible move such as that with services for visually-handicapped children towards some closer links with ordinary schools. This difference seemed to reflect a sincere and quite widely held view among teachers and others that deaf children were so cut off from other children by their communication handicap that most of them would develop better communication and language skills in a special school organized to meet their particular needs than they could in a small unit at an ordinary school. In the process, they would also make better progress in their other school studies.

The majority view seemed to be that teaching the communication skills was so demanding on teachers that one, or sometimes two, working in a unit simply could not provide the same quality of tuition as that which a reasonably efficient special school could offer. The school had a group of specialist teachers able to give each other advice and support; an enrolment sufficient to allow pupils to be classified, if only roughly, in terms of their age, hearing acuity, academic progress or whatever criteria their particular school adopted; and a head teacher with the specialist training that was a prerequisite for effective professional leadership.

Taken together, these propositions were generally considered to justify enrolling even young hearing-handicapped children in residential schools, sometimes far from their homes, until education in units was assessed as acceptably effective. However, Botswana, the United Republic of Tanzania, and Zambia already planned to establish more units, and the latter had recognized the need for adequate support for its unit teachers, whose classes usually covered a wider range of ages and abilities than did those at special schools. The Zambian planners envisaged associating their units with special schools which would support them by providing assessments of children's hearing acuity and teaching needs, access to necessary teaching materials (often needed only for a limited period) and general professional support.

Some countries which saw the obvious social advantages of units, particularly for town children who could live at home, tended to underestimate the cost of these necessary support services.

Partially-hearing pupils in special schools and units. No formal studies were identified which reviewed the enrolment of children with minor but educationally significant hearing losses in special schools and units, but visitors would soon have met them at almost all the schools visited by project staff. The background of failure at an ordinary school or home difficulties (sometimes both) noted for some partially seeing children was also found here. If adequate basic health care and hearing assessments and, where appropriate, hearing aids had been more widely available, many of these children could probably have at least coped in an ordinary classroom. They certainly needed the stimulus and social training of living in a hearing community rather than one catering primarily for children who were severely or profoundly deaf.

Two constructive uses of special schools to serve partially hearing children were noted. One school near a rural town admitted a few partially hearing children for short-term care while they received medical treatment at the district hospital for conditions such as chronic otitis media. Another school enrolled partially hearing children for a temporary placement while their hearing acuity was properly assessed, at which time a decision would be made on whether or not they should stay at the school.

Services at tertiary level. At the other end of the educational spectrum, the Unesco project did not locate any organized support service for deaf students at universities or other tertiary education programmes. The very few severely or profoundly deaf graduates who came to its notice had received their university education outside Africa, usually at Gallaudet College, Washington, D.C. Some of these graduates found the transition back to an almost completely oral environment most difficult. Both they and their hearing associates were frustrated that their only effective mode of communication was through written notes.

The very limited educational services for pre-school children, second- and third-level students and, indeed, for adults with deteriorated hearing were not among the matters usually mentioned by informed and concerned local people: they gave priority to the need for more school places, staff training, hearing aids and other specialist equipment.

Curriculum. Two aspects of the curriculum then offered need a separate comment as they reflect important long-term issues. They are the communication strategies taught (oral, non-oral or some combination of these) and the oral language or languages used at each school.

All the information received up to 1983 suggested that, with the exception of three of the six special schools in Ethiopia, all the education services for hearing-handicapped children were oral in their choice of the communication modalities they taught and employed. Some services supplemented their teaching by the planned use of non-oral methods, natural gestures, sometimes local signs and, less often, finger spelling. The Ethiopian schools which relied primarily on non-oral techniques, signs and finger spelling, sometimes supplemented them by tuition in oral speech and language for those pupils considered able to benefit.

Most teachers used some non-oral communication techniques in their overall language programme and a few schools offered tuition in a systematic sign language either to all pupils or to those older pupils who had limited competence in oral language. However, no schools were providing a planned 'total communication' programme based on the integrated use of both oral and non-oral techniques throughout a child's schooling.

This strong preference for oral techniques was completely understandable when one recalls the very considerable contribution towards the establishment and development of the existing services made by individuals and organizations with this orientation from the United Kingdom, Western Europe and the United States. The Ethiopian 'non-oral' schools were sponsored by an American group, a reflection of the long and continued use of these methods in some American programmes for deaf children.

With a few noticeable exceptions, the teachers in the sub-region had not had an opportunity to test their commitment to oralism in the light of developments elsewhere over the past fifteen years or so towards a synthesis of oral and non-oral approaches through the emerging 'total communication' programmes. Most of the minority of teachers holding a specialist qualification gained it either at one of the four orally oriented training courses in the sub-region, none of which gave this topic much attention up to 1983, or at a similarly oriented course elsewhere. Like other special education staff, the teachers working in schools or units for the deaf had at best only limited access to professional books or journals, and very little of what they did see had much obvious relevance to their own work and aspirations.

The project staff had no wish to impose a 'total communication' approach on anybody in the sub-region, but they knew it would inevitably receive more publicity as time passed. It was, therefore, included in the programme of the regional seminar on the education of deaf young people (Lusaka, 1982) as an integral part of a full review of current teaching strategies. The seminar staff and the visiting lecturer who introduced the topic took pains to stress that they were not trying to persuade participants to adopt a total communication approach in their own work.

Most of the members reacted negatively at first to the implication that a total communication approach warranted their careful consideration, presumably reflecting both their honest and deep commitment to oralism whatever its difficulties and deficiencies in practice, which they recognized, and their sincere doubts whether pupils taught to use a sign language would be able to adapt to everyday life in an African community. The seminar members finally decided that educators of deaf children would need to give further consideration to the use of total communication approaches and to work for agreed national policies relating to it. They asked Unesco to provide further information and opportunities to discuss it. This request has since been followed up, but the issue remains alive and very important.

It is relevant to note that at the same time some groups of deaf adults in the sub-region were beginning to press for more emphasis on teaching non-oral communication skills to deaf children, partly to improve their personal language competence and partly to facilitate better communication between deaf adults. Given reasonably prompt action and some external support, there was at least a chance that the interest groups could co-operate in developing a basic regional sign language before their countries became committed to differing versions, which would establish a further barrier to easy international communication for deaf people.

Many, probably most, deaf children were not taught to use either their home language or the one which would be in general use in the community they lived in after they left school. Eleven countries used English as their primary or only language of instruction for deaf children, though some indigenous languages were used informally in many schools, particularly in their residential hostels. The United Republic of Tanzania used Swahili, its national language.

The history and present implications of this policy are too complex to be discussed fully here. There was general agreement that it had been the best of the available options, none of them completely satisfactory given the situation where:

The deaf children likely to enrol in a pioneer special school could come from homes using different languages.

Some parents could object to their child being taught through an indigenous language other than their own; each school had to have a recognized instructional language.

If one African language was predominant in their school's likely catchment area, the foundation specialist teachers, themselves expatriates, would, if they wished to use it as their language of instruction, first have to make themselves fluent in it, then study its structure and grammar sufficiently to devise teaching programmes suited to deaf children, and then prepare basic reading materials and teaching aids to support it.

The staff were, presumably, keen to avoid if they could the long delay this approach would require (if it were feasible) before they could start teaching.

They were already competent in English, some (at least) of them were experienced in teaching that language through oral methods to deaf children who came to school with little or no oral language skills, and they could obtain basic English texts and teaching aids which, perhaps with some amendments, could be used to teach English in Africa.

English would offer them and their pupils a common oral and written language, and would enable new expatriate staff to contribute immediately to their school's work.

Whatever the actual mix of reasons, the education of deaf children in eastern and southern Africa was based from the beginning on a foreign language then used only by a small minority of the population and, except for expatriates, only in business and official work. The teachers concerned knew this, but perhaps felt that giving their pupils some competence in English should contribute to their social effectiveness as adults and give them speech-reading skills applicable to their local language. In some schools, oral languages other than English were used informally (or by some local staff), as well as the natural gestures and signs often found at oral schools for deaf children.

These decisions made thirty years earlier set the pattern for all the programmes noted in 1981-83 except for those in the United Republic of Tanzania, which by then used Swahili. However, the language environments in which deaf children were educated had changed in several important ways and seemed likely to change further. Since gaining independence, many countries had fostered the use of their national language in print, radio and television (where it was available) as one way of fostering national identity. More recently, their drives to reduce adult illiteracy had placed increasing emphasis on the use of oral and written local, and in some cases national, languages. To a lesser but significant extent, regular first-level schools serving areas which had one widely used district language were increasing their use of local languages in junior classes.

At the same time, a growing number and proportion of hearing-handicapped children were attending a first-level school long enough to be able to use English effectively in a general way; the extension of secondary and tertiary education relying on that language had extended its use in businesses and industry.

The project's discussions and studies did not warrant any useful conclusions, but they did suggest that many children at schools for the deaf were being taught to use a language which was undoubtedly important but not the one which most families and communities usually used in their everyday activities.

Participants at the project's 1982 seminar recognized that their present English-based policy was becoming more open to criticism, but most of them did not expect to see any radical change in the next decade. They noted that there was little general public pressure to change, and that there seemed no agreed criteria on which present and alternative policies could be assessed. They looked forward to the day when parents would be helped to give their young deaf children the best possible start in their local language. They saw some possibilities for using these languages at units or schools serving predominantly one-language areas, but considered that most schools and units would have to continue teaching in a national or international language, partly because these would be the home language for some children and partly to give at least the more able children the chance to use them in their adult life, and perhaps in further education.

Buildings and equipment. Many teachers and their deaf pupils worked under conditions which inevitably impeded their work. Most of their classrooms were bare brick or concrete with poor acoustics, and some were so dark that lip reading was seriously impeded. This situation certainly reflected to some degree limited funding and the awful durability of solid buildings erected when standards were different. Inquiries suggested that at least some of the architects concerned had not had access to, or had not followed, appropriate standards and specifications.

Almost all schools and units were seen or reported to face continuing shortages of the electronic equipment (hearing aids, audiometers, sound level meters and so on) now recognized as necessary if deaf children are to make reasonable progress in learning oral language skills. This shortage, like those in other special education services, appeared to be caused primarily by inadequate funding by governments and other controlling authorities, resulting in recourse to fund-raising by schools themselves, donations of money or equipment by local or expatriate individuals or organizations, and purchases by individual parents. As a result, the schools and pupils concerned had a wide variety of brands and models, not all suitable for their users' needs or for tropical conditions, and often pupils who needed a hearing aid could not be given one.

This situation was compounded by the associated lack of adquate funds for providing batteries, spare parts and maintenance for the available equipment. Donors had not usually accepted any commitment to meet these costs, which could be heavy. All, or almost all, the materials involved were imported and service charges could be high, particularly for schools in rural areas which also had to pay travelling or transport costs. Only a few of the special schools visited reported having on their staff somebody able to do more than replace a battery or a hearing aid cord, or repair a broken electricity plug. The whole problem was reflected in the frequent lack of planned hearing reassessments, sometimes very limited school records (including audiograms) and limited provisions for checking individual pupil's hearing acuities. Botswana's one special school was fortunate to be served by the trained audiologist at a nearby district hearing clinic maintained by the health services. It was also close to an ordinary school.

The sad consequence was that special schools had in store or had discarded large quantities of expensive electronic equipment, much of which could probably have been used economically for a longer period. One large residential school reported it had not had its single audiometer calibrated for at least five years.

This was a serious problem with no simple solution. Fortunately, some countries were developing national policies for the selection, purchase and maintenance of hearing aids and other electronic equipment, including provision for training and employing the necessary technical staff.

The problem had been compounded by the understandable emphasis placed on the value and effective use of electronic equipment by all the specialist teacher-training courses in the sub-region and by those courses elsewhere attended by a few teachers and by many of the sub-region's present and prospective teacher-training staff. Some experienced training staff considered that, perhaps as a result, teachers sometimes underestimated quite considerably what they could teach and what their pupils could learn when hearing aids and other specialist electronic equipment were not available. These lecturers pointed to the very real progress made in teaching speech and oral language to deaf children before the development of modern sound amplification devices. This matter was discussed fairly fully at the project's 1982 seminar and merits further attention.

Future patterns of service. The only firm plans known to the project for any systematic increases in units for deaf children were Botswana's and the United Republic of Tanzania's stated general commitment to this policy and Zambia's intention to serve each province through a special school which would support a network of associated units. Other countries recognized the disadvantages of both day and residential schools, but considered they could still offer better specialist teaching than units. Developing support programmes did not figure anywhere as a short- or medium-term priority, nor did planning to draw on the skills and knowledge of the trained teachers to support the emerging community rehabilitation services.

Services for physically handicapped children and for children in hospital

Although the project staff placed as much importance on services for physically handicapped children as it did on those for other young people needing special education, it did not collect as much information about them in 1981-83. Consultations early in 1981 revealed that most countries preferred that the sub-regional seminar provisionally allocated to this topic should be used instead as a second seminar on the education of children with mental handicap. They considered that developing good education programmes for physically handicapped children was relatively straightforward, given the necessary funds, because it involved basically modifying the ordinary school curriculum. Mentally handicapped children, however, needed a curriculum devised specially for them. The government officers consulted wanted to involve as many as possible of their staff working for or with mentally handicapped children in one of the project's seminars because they had very few other opportunities to study in this field. The seminar programme was changed accordingly, thereby limiting the project's opportunities to study the services provided for children with physical handicaps. However, it obtained a useful though less complete overview through its other activities and from the associated governments' responses to a questionnaire which it circulated. One rather unexpected fact was Swaziland's nil return (Table 12) considering its relatively high overall standing in providing special education as indicated in Table 7. This presumably reflected the lack of an interested sponsor.

Some of the special schools had some pupils who received all or part of their teaching programme at a nearby ordinary school, and some suitably located special schools provided shorter-term care for children receiving hospital treatment not available in their home district. Given also the minor uncertainties over some enrolments, Table 12 is best read as broadly valid but not necessarily accurate in detail. It does not give any information on the services which the schools and units may have provided to children below school age or to second-level pupils. No pupil support programmes at any level were reported, but the Mauritian project was known to be supporting some physically handicapped pupils in pre-school establishments and a multi-category unit for young children needing special education.

The project learnt that several countries provided residential care for children and adults who had contracted leprosy, but it did not investigate these provisions. Some of the schools listed in Table 12 may have enrolled some children with this condition. Others were living in institutions described as homes or hospitals. Some, possibly all, of these facilities in Zambia provided organized schooling, and this was quite possibly true also for those in other countries. The number of children contracting leprosy was reported to be declining and medical treatments were reducing its resulting disabilities, particularly if these were begun at an early stage.

Children with leprosy are not mentioned specifically in this review, but they should be kept in mind as young people who may incur serious physical disabilities which will have lifelong implications for their personal competence and way of life, and who therefore have at least an equal claim with other physically handicapped young people to appropriate special education and vocational training.

Pre-school services. The project learnt of the special programmes provided in Dar es Salaam by the Tanzania Spastic Society, with government support, and by the St Giles special school in Harare, the two schools for multi-handicapped children discussed below, some schools for mentally handicapped pupils which enrolled young children with additional handicaps, and by the Jairos Jiri organization in Zimbabwe. Jairos Jiri is a substantial voluntary society, named after its founder, which provides a wide range of services for disabled persons in Zimbabwe, with considerable external financial help. The staff of its centre for young physically disabled children in Harare were then developing a stimulating and emotionally supportive environment for their charges, some of whom were multi-handicapped. Some of the schools included in Table 12 as well as St Giles enrolled a few pre-school children, often on humanitarian grounds.

School services. The pioneer teaching services were all provided by special schools some of them residential only, and some also enrolling day pupils. The picture was changing by 1983 with the development of unit programmes, particularly in Kenya where churches and other organizations were establishing small district hostels, accommodating some ten physically handicapped pupils attending a nearby primary school. The project also learnt of a few pupils with movement disabilities attending secondary schools and tertiary studies through local arrangements.

Enrolment patterns. An obvious difference in 1981-83 between a typical special school for physically handicapped children in this sub-region and one in a more developed country was that the former was a noticeably more lively place. A higher proportion of its pupils were independently mobile, and noticeably fewer of them had obvious communication difficulties. The major reason for this difference was the comparatively large enrolment of children whose disabilities resulted from poliomyelitis. Some who enrolled at the special schools or units had several consequential disabilities, but most showed only movement difficulties. Most could walk unaided or with sticks or crutches, but some needed a wheelchair while a few needed to be pushed in their chair by others.

Table 12. Education Services for Physically Handicapped Pupils (reported 1982-83)

Country	Special Schools	Units	Total enrolments
Botswana	1	-	30+
Ethiopia	3	-	140
Kenya	7	15	1 648+
Lesotho	1	-	48
Malawi	-	-	30
Mauritius	-	3	19
Seychelles	1	-	94
Somalia	-	-	-
Swaziland	-	-	-
Uganda	1	2	124
United Republic of Tanzania	2	3	253+
Zambia	6	5	592
Zimbabwe	2	2	450
Total	24	31	3 428+

The other pupils comprised two broad groups. The first had handicaps resulting from other diseases, congenital abnormalities, birth injuries or accidents. Their most commonly noted disabilities were those associated with cerebral palsy. Most of the children in this group seemed moderately to severely disabled, and the schools which were observed enrolled very few who needed total or near-total care. The second and usually the smaller sub-group comprised those children who had one or more significant additional handicaps, the most common being some apparent mental retardation.

The balance among these three groups varied between different schools, though the first was clearly the largest at all the schools checked for this point. Most of those visited had some pupils whose admission had been justified partly on social grounds. From another perspective, the schools enrolled many children who had no primary learning disability and who could have made reasonable or better progress at an ordinary school had that been possible.

Related health services. The effects of inadequate maternal and child health services was forcibly evident at the sight of fifty or more children disabled by poliomyelitis moving from their hostels to their classrooms in one large group. These same children, and some other physically handicapped pupils, were additionally disadvanted by the lack in many areas of the physiotherapists, occupational therapists, speech therapists, and splint and corrective footwear makers who could have contributed to their rehabilitation. Some schools had established workshops to repair splints, braces, wheelchairs and footwear so far as their limited resources would allow; and at least two schools had trained some of their older pupils for this work. But the shortage of therapists, particularly in rural areas, was an almost insurmountable barrier for some schools.

Curriculum. Observations and discussions generally supported initial government statements that schools and units for children with physical handicaps followed their country's curriculum for first-level education with modifications, where necessary, to the content and pace. Some apparent mismatches between a child's assumed abilities and understandings and the lessons highlighted the difficulties faced by many of the teachers involved in the almost complete lack (outside Zambia) of any specialist training or advisory services related to their work. Schools with teachers who had obtained relevant study outside the sub-region were fortunate. The children who were most disadvantaged were those with perceptual, language or communication difficulties (often related to cerebral palsy) or with some additional educational handicap who needed a teaching programme significantly different from that offered to other first-level pupils and tailored to their particular abilities and needs.

The variations seemed to depend more on a staff's pool of professional knowledge and the head teacher's attitude than on the availability of any specialist equipment. Thus while none of the schools visited used Bliss symbols (a special communication system for children unable to use spoken language), the more successful schools usually had at least one staff member who knew of this system and was interested in developing local teaching aids based on it or intended to meet the same need.

There seemed a good case in this field also for placing more emphasis in the programmes for older pupils on studies and experiences which would help them prepare as well as they could for their transition from a sheltered school environment to life in the outside world, with all that might involve in terms of home life, possible further training or education, mobility, employment or unemployment and their general interactions with able-bodied people. The pupils at the more isolated rural special schools seemed particularly to need this help.

The opportunities available at the special schools and units for study at the secondary-school level were not fully investigated but did seem to be limited to a degree which deprived some of the academically more able pupils of opportunities which they could have used effectively to prepare themselves for employment or for third-level study for which a secondary education was necessary.

Equipment. A surprisingly large number of pupils used ordinary school tables and chairs which did not seem suited to their postural needs and which could have been adapted locally at no great cost. Some of the pupils who had limited hand motor skills were fortunate in having the use of a manual typewriter Very few of those who had more serious motor handicaps had access to an electric typewriter or to the other specialist equipment that can be so helpful. Wheelchairs were available, but at some schools they had to be robust to survive for a reasonable period on the rough paths and grounds. Only a handful of electric wheelchairs were seen, all privately financed.

Some governments met all or part of the cost of wheelchairs for approved children, but others did not. The unmet costs fell on parents and voluntary support groups. In 1982, a standard wheelchair for a 10- to 11-year-old child cost more than one month's salary for many skilled workers; and more than one year's cash income for others, including many subsistence farmers. Some special schools maintained a pool of wheelchairs for their pupils which they financed from all the available sources. This was a positive approach to a difficult question, but it meant that their graduates had to find another wheelchair if they were to retain their mobility. The same problem faced other special school leavers who had had the use of a typewriter, a hearing aid, a tape recorder or some other special equipment.

Future patterns of service. No country envisaged that it could provide residential school places for more than a small proportion of the children in need. Some planners envisaged a significant decline in the number of these children once immunization for poliomyelitis became well established. There seemed likely to be growing interest in the 'hostel plus unit' model as the future bases for wider support programmes serving disabled pupils in regular classes. A few far-seeing people saw them also as the bases for constructive linkages with primary health-care and community rehabilitation services, thus offering appropriate training and basic education to handicapped children in pre-schools and ordinary schools, and in their own homes if they could not attend these facilities.

This short review inevitably highlights areas where progress seemed needed. The consequences of being deprived of the education the schools and units were offering have been described simply but effectively by a Kenya author, Njuguna Githagui (1982), who became a paraplegic following a head injury in 1947, when he was 4 years old. In his autobiography *Don't Worry My Son*, he told how, with very little helpful outside support or guidance, his family did all they could to teach him the lessons he missed because he could not attend school, and supported his own efforts to adapt to life as a disabled person in a world which could offer him little social or vocational participation.

Services for children in hospital

The project learnt of only one official teaching service for hospitalized school-age children that provided at the University Teaching Hospital in Lusaka, Zambia. It functioned successfully along the same lines as similar programmes elsewhere, and the medical staff with whom it was discussed considered it contributed positively to their total programme.

Services for mentally handicapped children

The only other special education programme of any size was that for children identified as unsuited for enrolment in an ordinary class because of their slow intellectual and academic progress (see Table 13). Pupils described variously as mild to moderately (or educable) mentally handicapped (or retarded), educationally subnormal or backward merged on the one side with those who were described as rather slow learners or the 'borderline average' group, and on the other with the smaller group of children more seriously delayed in their intellectual development. These were described as moderately to severely (or trainable) mentally handicapped (or retarded), severely sub-normal.

Of all the programmes included in this overall survey, this is clearly the most difficult to review in a valid and useful way within the available space. Its two sub-programmes noted above were essentially separate, and so much that was interesting and important was happening. This was partly an immediate response to activities for the International Year of Disabled Persons in 1981, but it also reflected the slow but steady development over the previous ten years or more of government, professional and the informed public's interest in the education of more seriously mentally handicapped children. At least seven countries were planning or reviewing their policies and programmes.

Probably every relevant issue mentioned so far in this book was being discussed somewhere, and some which have not been raised yet, including the roles of aid agencies and special-interest organizations. These certainly included the following items:

Defining, or for some countries redefining, in useful operational terms, the meaning to be attached to the term 'mentally handicapped' or whatever equivalent term was used. This raised such basic questions as whether such a term was necessary for educators; if it were, what criteria should be used in applying it to children; and whether or not it referred to an underlying disability, or in some cases impairment, which could be reduced by suitable education.

Deciding whether this special education programme should serve children considered to need short-term 'remedial' teaching, as at least some of Zimbabwe's special classes did, or whether this should be left to a separate programme such as those then available in Seychelles and Zambia.

The emphasis to be given in teaching programmes, including those for more severely mentally handicapped children, to preparing pupils for life in the ordinary adult world. The answer might seem obvious, but in practice teachers could vary in their approach, as some seminar members did, over the value of such normalizing activities as inviting senior pupils to evaluate their school programmes and contribute to planning them.

The place of Direct Instruction teaching programmes in the education of mentally handicapped children.

Parents' roles in educating their handicapped children.

Research resources and priorities.

The language of instruction in schools and units where there are viable alternatives.

The appropriate school placement for older, less seriously handicapped pupils enrolled in units at first-level schools. Some of these pupils were 16 years of age, or considerably older. Zimbabwe was establishing units at some second-level schools, which would permit less seriously mentally handicapped pupils to complete their schooling with students of about their own age. This innovation raised important long-term issues in a sub-region where most countries restricted admission to second-level schools to those pupils who achieved a sufficiently good pass in a competitive entrance examination.

The two programmes were not so separate in practice as Table 13 may suggest. As the table shows, three countries reported one or more schools officially recognized as serving both groups. Two of these schools, one in Mauritius and the other in the Swaziland capital of M'babane, also enrolled some children who were expected to return to an ordinary school after a period of remedial teaching. Some units in Zimbabwe also offered this service.

Beyond these declared broad-banded programmes, some of the 'one-category' schools and units enrolled children who seemed, on observation, to fit more readily into the other category in terms of those facilities' own stated admission criteria. Inquiries suggested that this situation reflected the head teacher's or unit teacher's decision that while a particular child was probably outside those criteria, the school or unit could probably serve him better than an ordinary class in the absence of a more appropriate placement.

Questions concerning whom a service should serve and its teaching strategies have no clear-cut and universal answers, and they related in this case to a group of disabled people among those most open to rejection by family and community. Furthermore, there was a general professional and public shortage of useful information on local needs and on relevant developments elsewhere. At the same time, many groups and individuals outside the education system and (probably for the first time) some with mental handicaps wanted to be involved in the debate. Whatever its problems, this exercise seemed a healthy and constructive development, but it did bring some uncertainties for thoughtful teachers, teacher trainers and administrators.

Table 13. Education Services for Mentally Handicapped Pupils 1981-83

Country	Mild to Moderately Handicapped		Moderate Severely Handicapped		Mild to Severely Handicapped	Total Enrolments
	Schools	Units	Schools	Units	Schools	
Botswana			1			36
Ethiopia						-
Kenya		15	11			600
Lesotho						-
Malawi						-
Mauritius			1		1	183
Seychelles					1	75
Somalia						-
Swaziland					2	65
Uganda			2			30
United Republic of Tanzania			1			10
Zambia		5	1			130
Zimbabwe	1	61	8	1		1 186
Totals	1	81	25	1	4	2 315

Note: Total enrolment included about 1000 less seriously mentally handicapped pupils attending the eighty-one units and three schools reported as serving this group.

This comparatively slower progress towards a basic consensus on some key issues for the education of children with mental handicaps was consistent with the generally slower development of education services for them. The first special schools and units were among the pioneer special education facilities in the sub-region, and the potential client group was probably about as large as those for the services for deaf or blind children. However, as Table 13 records, its total enrolments in 1981-83 were only 2,315. Perhaps 40 per cent of these children were mild to moderately handicapped. Even if the other two programmes' enrolments of around 3,900 had contained as high a proportion of less seriously disabled children, they would each still have been serving nearly twice as many more seriously disabled pupils.

Discussions suggested that this discrepancy reflected long-standing uncertainties among governments and community leaders initially on the feasibility of educating more seriously mentally handicapped children and, when it was accepted as possible, the general feeling that it merited less priority than even the fairly low ratings given to the education of other handicapped children. Certainly only four countries had a teaching programme for this group by 1970 compared with nine for deaf or blind children. By 1981-83 only Kenya and Zimbabwe, and to a lesser degree Zambia, Mauritius and Seychelles, had the basic administration and other elements on which a national service for this sub-group of seriously handicapped children could have been developed.

The situation concerning less seriously handicapped children had been, and still was, rather different. The largest programme by far for them was that of Zimbabwe, established by the white community of what was then Southern Rhodesia to serve its group of noticeably slow-learning children who in the United Kingdom the community's reference country, were then described as educationally subnormal. By 1981-83, it served all ethnic groups. Its pupils were still selected using basically the psychometric and scholastic criteria which were considered appropriate under the earlier regime, but these were being questioned. Kenya and Zambia had also established units to serve these children, and in these countries also some teachers, university and teacher-training college staff, and administrators were querying the relevance of accepted criteria, particularly for its great majority of rural children, even if local adaptations of the established intelligence and attainment tests were available.

Their argument was essentially this. If a child had shown himself as likely to be acceptably competent in living in his own community, did the fact the he might make noticeably poor progress in mastering the language, mathematical and behavioural skills and the memory tasks important for success at school justify a global assessment that he was mentally handicapped? Might not the fault, if any, lie at least partly in the content and presentation of school lessons and in the assessment policies and procedures used?

The usual rejoinder was that these literacy and numeracy skills were necessary to enable any child then at school to cope with the demands he would inevitably meet in his lifetime, considering the steadily increasing importance of written records and literature, non-traditional technology and modern business for all people. Any school system which did not do all it could to help all young people to master these skills, including providing specialist tuition if needed and available, was simply ensuring that its slow learners would become poor and powerless adults. However, the proponents of this position did usually agree that labelling a child as mentally handicapped or some equivalent term in the process of selecting him for this specialist tuition was not really necessary, and some went further and agreed it might not be justified.

This was usually not the key question for the classroom teachers and head teachers with whom the topic was discussed. They had children in their classes who were making noticeably slow progress and whom they considered needed individual help of a kind they could not usually provide. If there was a special school or unit, or a remedial programme in their area to help these pupils, their teachers were happy to see them join it on a full or part-time basis, whether or not admission depended on entrants being identified as having a mental handicap.

Curriculum. The associated countries' general wish that the project focus on services for children with more serious mental handicaps limited the time available to review the services for children who were mild to moderately handicapped. As a generalization, the programmes observed in Kenya, Zambia and Zimbabwe were essentially the curricula for the ordinary classes in their own country taken at a slower pace. The quality of the teaching actually seen and discussed with the staff concerned ranged from admirable to clearly ineffective. The same range was found in the quality of the assessments and planning on which particular lessons were based and of the records kept on pupils' progress. If the small groups of classes visited and teachers met at seminars were typical, the programmes shared the need already seen elsewhere to give older pupils a better preparation for life once they left school. Parental anxiety over that transition was certainly one reason why certain units enrolled some pupils well above the usual leaving age for first-level schools.

It is fair to comment here that up to 1983 only Kenya and Zambia offered specialist training in the education of children with mental handicaps, that some units in Kenya had teachers who had not had this training, and that the teachers in these units and those working with more seriously retarded children received very little professional help from the small groups of administrators, teacher-training staff and psychologists (in Zimbabwe) able to offer useful guidance. Some of the unit teachers reported that they were professionally isolated from the other staff at their base school and some considered their head teacher's attitude clearly negative. Others were much more positive in their assessments, but reported that their pupils were minimally involved in the teaching programmes of the ordinary classes at their school.

The teaching programmes for more seriously mentally handicapped children visited in eight of the countries offering this service were equally diverse. As these were all based in separate special schools, the quality of the head teachers' impact was very obvious, though it was sometimes affected by the attitudes of influential local people. The head teachers of some rural and some urban special schools were responsible for a good proportion of the better teaching programmes in the early 1980s, but a few of their colleagues at other special schools were at the other end of the spectrum.

The Kenyan and Zambian governments' curriculum units were both developing comprehensive curriculum guides on the education of children with more severe mental handicaps; each project involved ministry of education officers, university staff, psychologists and other persons with relevant knowledge and skills. They reflected a more open-ended view of the potential learning ability of mentally handicapped children, increasing interest in teaching programmes for pre-school children and in programmes to help older students' transition to the adult world and a clear move towards efficient teaching of nominated skills in progressions aimed at developing each child's language, motor and social skills and his knowledge of himself and his world. This approach was involving the project teams in developing assessment schedules related to skill hierarchies. The Kenya Institute for Special Education was expected to contribute significantly in this exercise.

The six countries that had one or two special schools left curricular matters largely to them, though Tanzanian and Mauritian government groups were becoming involved. The other important initiative was that begun in Zimbabwe by the Zimcare Trust (see pp. 101 et seq.), the voluntary organization which provided all that country's education programmes for children and adults with more serious mental handicaps. It offered a fortunate minority of these children and their families programmes moving from support for parents of handicapped infants through pre-school, school and vocational training programmes to supported independent-living projects and more supervised care for some more retarded adults.

The trust's own educational planning and advisory staff were involved in developing and implementing the programme for the project's three-week seminar on the education of mentally handicapped children held in Harare in May and June 1982. The project staff wanted to give all the participants an opportunity to extend their knowledge of important developments in their work and their competence as teachers. Following the strategy which led to the presentations on total communication at the earlier seminar on the education of deaf children, Unesco invited Dr Alex Maggs from Macquarie University, Sydney, to be the principal lecturer. Dr Maggs had developed some innovative and effective teaching programmes for seriously mentally handicapped young people and had participated in a recent comprehensive review of the United Republic of Tanzania's special education services.

The impact of his comprehensive and active presentation is reflected directly in the description in Chapter 5 of the teaching programmes in language and mathematics which the Zimcare Trust staff began to develop soon after the seminar.

Links with parents. The new programmes then in preparation and the work of some special schools also reflected increasing professional interest in working as partners with parents in educating their handicapped children. The fact that there was a higher proportion of day schools in this programme than in those for children with hearing, visual or physical handicaps probably contributed to its apparently greater involvement in this worthwhile development. However, teachers' comments at the project's two related seminars revealed considerable uncertainty about what this policy ought to mean in practice, considering the wide range of their pupils' family backgrounds and attitudes.

Future patterns of service. By late 1983, the Zimbabwean Government envisaged some additional units for less seriously handicapped pupils, particularly in secondary schools, but elsewhere planning was focused more on services for children with more serious handicaps. The United Republic of Tanzania was planning its second special school, Kenya and Zambia envisaged establishing more schools, and Zambia was interested in the possibility of serving these children also through resource centres. SIDA was helping Botswana to plan a service for its very dispersed population through district resource centres.

With some assistance from the project, Malawi and Ethiopia were preparing proposals to develop a similar kind of service for all children with mental handicaps except perhaps the few who were very severely retarded. It would be provided by specialist staff at resource centres with associated hostels which would, in time, provide a range of services including:

> Participation with health and other relevant services in the early identification of developmentally delayed children and in providing them, through their families and any available service groups, with an appropriate training programme for as long as proved necessary. This strategy would provide some continuing service for those handicapped children who for some reason could not attend any school.
>
> Helping the teachers at the ordinary schools in their district to provide the best possible teaching programmes for children with significant learning difficulties.
>
> Providing at the resource centre, and in association with its base school, education for children whose educational difficulties were such that they could not be met in an ordinary classroom given help from the resource centre.

These were long-term projects which would require sustained external support. They may, however, prove to be the pioneers of a special education service which could in time serve all the mentally handicapped children in a district and keep them all as close as possible both to their own family and to other young people.

Services for multi-handicapped children

Both the special schools and units which have been discussed as well as some ordinary classes enrolled children with more than one handicap of some apparent educational significance. This is always appropriate if teachers can offer a suitable programme, but there were certainly circumstances in 1981-83 where this was not possible.

By 1983, the project knew of only two special education programmes, both in Kenya, stated to serve multi-handicapped children in the sub-region, and one which did so although not so identified in its title. The special school for physically handicapped pupils at Thika, opened in 1980, enrolled about twenty pre-school and school-age children with physical and intellectual disabilities in a unified teaching and care programme providing individually planned step-by-step training in self-care (including toileting), mobility, speech and language, and social and academic skills. The senior teacher stated the unit's function to be educational, not long-term residential care. Pupils returned home after a period of training with advice to their parents on their care, and they could be re-admitted for further training if that was assessed as justified in terms of other applications.

The second programme, established jointly by the Kenya government and the Christoffel Blinden Mission (a non-government aid agency supporting services for disabled persons in several countries in the sub-region) to serve children identified as deaf-blind was the first school for deaf-blind children in eastern or southern Africa, excluding South Africa, in tempory premises at Kuja School for the Deaf, in western Kenya.

When the project staff visited the school in 1981 and 1982, it was staffed by its principal, one teacher and some aides. The principal had received his specialist training at Perkins School for the Blind, Boston, Mass., a recognized educational centre for deaf-blind children. He was the sole selector of children admitted to and withdrawn from the school, which was too remote for any Kenyan medical or psycho-educational specialists to make any continuing contribution to its work. The principal was prepared to consider admitting for further assessment any child with defective sight and vision, including those who also had physical and/or mental handicaps, and whose complex of disabilities could well relate to major neurological impairments. The five or six pupils then at the school were roughly between 3 and 8 years of age, and several clearly had such impairments.

All the pupils were receiving individually multi-sensory stimulation programmes based on careful and continuing assessments of their attainments and teaching needs. They were all considered to be responding positively, though some only in a very limited way; they would remain at the school as long as they made acceptable progress. Parents were encouraged to participate in the school's programme and could live in while they did so, thereby learning more about their children and how best to care for them at home during school vacations or if they ceased to attend. The principal was adamant that his school should not be used to provide long-term residential care for pupils who failed to make minimum progress.

When the school is finally and fully established in its own new premises, it should provide an invaluable service for about thirty deaf-blind children who prove able to benefit from its programme and could become a potentially valuable focus for further action. The Kenya government and the Christoffel Blinden Mission were discussing its permanent site and buildings in late 1983. Their decisions would have important implications for the school's ability to meet these two goals.

The school would be unique for Kenya. As the only one of its kind for the foreseeable future, it would serve the whole country, and it would be peculiarly dependent on establishing and maintaining effective professional and social links if it were to be fully effective. For all these reasons, it needed to be sited where it could: serve the country satisfactorily taking into account the distribution of the population and main transport routes; develop good working links with all related professions, and a continuing professional interchange with at least one active school for deaf children and one for blind children; recruit and retain competent teaching and other staff, and provide for their adequate and continuing in-service training; develop good working links also with teachers' college and university personnel involved in relevant staff training and research; and become effectively part of a local community which could include deaf-blind pupils and their school's staff in its ordinary and special activities.

Taken together, these factors suggested that the school would need to be quite close to the capital, Nairobi, as the country's transport hub and the base for its specialist medical and emerging psycho-educational services. It could then contribute significantly to increasing the knowledge and skill of these services.

The work of both this school and the Thika unit was paralleled to some degree by the individual teaching programmes for multi-handicapped young children being developed in some other special schools. However, these did not cater for children as severely handicapped as some of those at Thika or Kisii, or at the third multi-handicapped programme, the St Francis Home in Bulawayo, Zimbabwe.

The home had been established originally to provide care for severely disabled white children up to about 16 years of age. By 1982, it was continuing this service as part of the Zimbabwe national health service for all the country's ethnic groups. At this time, it was caring for about forty residents. They received good physical care from the home's staff of nurses and aides, but their daily programmes lacked stimulation and the continuing links with staff able to act as surrogate parents, which are needed to foster the best development of children living in institutions. However, this gap was being met with some apparent success by a very competent teacher of mentally handicapped children (sponsored by Zimcare with financial support from the Zimbabwe Ministry of Education and Culture), who had recently established the home's first education programme. She was working with about ten children, all clearly mentally handicapped and some with significant visual, hearing or movement disabilities.

The shared feature of these three services was the quality of the programmes offered, an obvious reflection of the competence and the resilience of the three senior or sole teachers. In terms of their ability to deliver an effective service in rather difficult premises, with limited resources and mostly untrained assistants, these three were fully on a par with the top group of the head teachers of the many special schools in the sub-region visited by the project staff. The Zimbabwe programme and that offered at Chainama psychiatric hospital in Lusaka, both listed with the services for mentally handicapped children, were the only two providing an educational service in the few residential institutions known to be caring for mentally handicapped children. The Lusaka school was then providing also the only available service for more seriously handicapped children living in the city. Its programme was still being developed but would obviously meet an important need for at least some of the hospital's multi-handicapped residents when it was fully operational. The Zambian Ministry of Education hoped to establish separate day schools or units for children living in Lusaka as the necessary funds became available. The Chainama school would then join the three programmes discussed above as a useful model for further development.

4

Other education services for handicapped young people; vocational training programmes and staff training

The three education support services dealt with in this chapter shared the same basic purpose as the five special education services discussed above. They existed to help children who needed specialist teaching in an ordinary school or elsewhere because they were in some way handicapped to a degree which clearly impeded their learning at school and sometimes also their life outside. However, they all differed from those five services in two respects they were rarely if ever administered as part of their country's special education programme and they were much less widely available. Two of them differed also in their staffing and location. These points are summarized at the end of the three separate reviews. The other two sections review the vocational training programmes available to handicapped school leavers and adults, and the training programmes provided for the staff of the eight services.

Services for children with speech or language handicaps

The children who would have benefited from these services were those who in wealthier countries could have been helped by a speech therapist or a teacher with specialist skills in assisting children with aphasia or other rather specific language difficulties. These children could also have a sensory, physical or intellectual handicap, possibly associated with an identified neurological impairment, and be enrolled in a related special education programme, or they could be properly placed in an ordinary classroom. In all cases, the presumption would be that they could also benefit from a support programme provided by a speech and language specialist.

Services for children with these handicaps not due primarily to deafness were very scarce or non-existent. The project was informed that corrective surgery for impairments such as cleft palates was available in most associated countries for a minority of those who needed it, and in some cases, only for those children whose parents could pay. A few psychologists and speech therapists were working privately in some major centres with children with speech or language difficulties. Two speech therapists employed at Kenya's base hospital in Nairobi, serving a population of a million, worked with both children and adults. Other hospitals in the sub-region may have offered a similar service, but no more than a token provision.

So far as special education services were concerned, one special school, St Giles, in Harare was linked with medical, psychological and speech therapy services to provide the only identified education and treatment programme for children with language or speech problems which was not associated directly with a special education programme for deaf or for mentally handicapped children. These services were rarely equipped to cater for children with significant communication handicaps which did not respond to their usual teaching programmes.

Services for maladjusted children

The project's programme for 1981-83 did not include any specific action through its seminars or otherwise concerning special education services for children who might be described as socially or emotionally disturbed or maladjusted. The associated countries did not have any services of this kind financed through their ministries of education when the programme was prepared in 1980-81, and they had not mentioned them in their own planning.

Delinquent behaviour among children and young people received both official comment and attention from newspapers and magazines, and was of concern to some urban teachers with whom the matter was raised. Thus the project heard of no professional studies on the nature, incidence and remediation through programmes involving appropriate education of atypically aggressive, withdrawn or bizarre behaviour patterns among school-age children. The study of the development of Tanzanian special education services (Kisanji, 1984), noted the emotionally disturbed as one group for whom no services were provided; it did not comment on the kind of programmes which might prove helpful. Whatever the reasons, this was not a high profile topic among educational planners and special education administrators.

However, when invited to do so, teachers in both ordinary schools and a variety of special education programmes throughout the sub-region had no difficulty in identifying children whose behaviour at school concerned them, the majority displaying overt unacceptable behaviour, a conduct disorder or social deliquency, some acting immaturely or in a withdrawn manner to a degree which, their teachers judged, was clearly impeding their studies and their relationship with other people.

Although no school-based services for maladjusted children were located, this does not mean that there were no services at all working to assist them. The Mauritian Joint Child Health and Education project, the Zimbabwe Psychological Service, the Lady Northey clinic in Nairobi, psychiatrists, paediatricians and general practitioners in private practice or public service and special-school staff were doing so, in various ways. The project staff noted simple but apparently successful behaviour modification programmes at one rural residential special school and two urban day schools. It learnt also that psychiatric hospitals in three countries Kenya, Malawi and Zimbabwe admitted some young people who were presumably more seriously disturbed, but no information on their treatment was obtained.

More attention was being given to children who were considered delinquent, or at risk of delinquent or other unacceptable behaviour. Three types of programmes with an educational component were identified. In 1982-83, the Seychelles government was working to establish a multi-disciplinary centre which would provide a full or part-time remedial education programme and social work support for the children concerned and their families. The staff of the centre would be supported by the psychiatric and psychological services available, and they might themselves support teachers in ordinary classes in their work with children with behavioural difficulties. The planning group expected that most of the children admitted to the centre would show aggressive or delinquent conduct, or both, and would come from disorganized or otherwise ineffective homes. They hoped to provide an integrated re-education and support programme which would assist these children to adapt more constructively to their whole community. A centre of this kind seemed a realistic provision for Seychelles' main island which then had a total population of about 57,000. If its development is adequately monitored, it could provide some useful data for other countries.

The second programme was one aspect of the work of the Undugu Society, a voluntary organization which offered help to some of the many people living in poverty in Nairobi. The city had a considerable population of school-age children who lived on the streets and found their food, shelter and activities where they could. The society offered these children a simple home, a remedial education programme and training for employment. Those who accepted were free at any time to return to the streets. The programme is mentioned here because its school component, provided in very basic premises and with the minimum of equipment, offered a graded transition of working environments, rewards and programmes which recognized the realities of life for young people who had been living on their wits, and who had usually had limited and not very rewarding school experiences.

The third group included programmes provided by three governments for children identified by the judiciary or authorized officers as delinquent or needing care, and required to live in specified institutions. These institutions, not special schools, were administered by Ministries of Social Welfare or Home Affairs; they provided school-age residents with educational programmes; at least one institution (United Republic of Tanzania) arranged for selected residents to attend nearby schools. If their pupils' backgrounds were similar to those of young people in equivalent institutions elsewhere, they would have faced a primary adjustment difficulty generated by their social background. Many would furthermore have been retarded in their school learning because of that background, and some would also have had educationally significant disabilities. Their claim to special education in the sense of a programme over and above that provided in an ordinary class would have been strong. How effectively their needs were met was not assessed, but their teachers faced the additional hurdle of not being linked professionally with other education services.

Support services for children making slow progress in ordinary classes

Probably nearly all the teachers in the sub-region's first-level schools and an unknown proportion at second-level had more pupils whose slow progress bothered them than did their counterparts in more developed countries. Some teachers a significant proportion in some countries had had little or no professional training, and very few of them had attended courses on teaching children who for one or more of the wide variety of possible reasons were falling behind in their studies. If they had this background, their schools were not well endowed with the books and other teaching materials helpful for this kind of teaching and most faced a competitive leaving examination to select students for government secondary schools.

Teachers' anxieties were sometimes reduced when one of these pupils was enrolled in a special education programme, received some help from one of the few itinerant specialist teachers or just dropped out of school. They might get some useful advice on helping the slow learners who stayed with them from their own colleagues, a nearby special school or unit, a formal assessment service such as the Lady Northey Clinic in Nairobi or the Zimbabwe psychologists, teacher-training college or university staff or other persons with relevant knowledge.

Given these circumstances, it was not surprising that teachers with whom the matter was discussed made little use of the concepts and teaching strategies now associated with the most recent of special education's sub-specialties teaching children who have what are now described as specific learning disabilities. Only one programme described as focusing on these children was identified, offered by the rehabilitation centre associated with St Giles' special school in Harare. The centre used a multi-disciplinary approach to working with parents, teachers and its clients to identify and hopefully remedy the factors which made otherwise apparently reasonably able children slow learners at school, usually in language subjects.

The more general approach was to assume that giving extra lessons covering the ordinary lesson material at a slower pace was the appropriate strategy. If this remedial teaching did not work and if there was no obvious health or home difficulty, a child could be viewed as probably a born slow learner, in other words, to some degree innately mentally handicapped. Whatever the conceptual framework, some wealthier schools employed teachers for small-group or individual remedial teaching, and parents paid for private tutoring of varied quality, seen as important if a child's chance of gaining entrance to a second-level school seemed at risk.

By 1981-83 two countries, Zambia and Seychelles, were developing specific, substantial government-funded programmes for this purpose; others, including Mauritius, were at least interested in doing so. Zambia's programme was working in its northern copperbelt region where it was started in 1976. A specialist one-year course for trained teachers at Mufulira Teaching Training College prepared selected teachers to identify and provide remedial tuition to children making slow progress at school. The children were described as mentally handicapped probably more on the basis of their attainments than of careful differential diagnosis though some special classes for mildly to moderately mentally handicapped pupils were also available in the region. The college had one demonstration school where individual and small group teaching was demonstrated and practised. By 1982 four 'resource centres' in two larger towns provided remedial teaching for children who attended them part-time from their own schools, and some 130 specialist teachers were working from selected base schools, each providing a pupil support service to schools in a designated area. Each of these 'unit' teachers worked part-time with about fifteen children; most of their teaching focused on reading skills.

In 1982 the service was serving some 2,700 children at any one time. The Zambian government considered this a valuable development which it hoped to extend to other regions as soon as proved possible. It noted three particular problems faced by the remedial teachers: the shortage of suitable rooms in which they could teach at the schools they visited, the limited competence of too many classroom teachers in teaching reading and their lack of knowledge about remediation strategies and special education generally.

The Seychelles programme at that time provided a total of about thirty additional teachers for the primary schools on Mahé, the main island, and possibly beyond it. These teachers provided individual or group remedial tuition to children having difficulties with their studies, particularly in languages. Seychelles is a trilingual country which now gives more status to its own Creole language, introducing pupils to both French and English during their primary education. The remedial teachers were supported by six advisory teachers working from a central office at the National Pedagogical Institute, Seychelles' curriculum development unit.

The advisory group helped identify children needing remedial teaching, devise suitable remedial lessons for each pupil and prepare teaching materials. The advisers were selected successful local teachers who were then given additional training by their expatriate team leader. Because of Mahé's small and compact population, the advisory group could maintain reasonably close contact with all the schools involved.

The characteristics of these three support services which differentiated them from the recognized special education services in terms of their staffing, location and/or administration are brought together in Table 14. The first two were very small in 1981-83, minute in relation to the potential client groups who could be helped in the community. The third was offering a significant service, but only in Seychelles and in one administrative region in Zambia.

At some time when they are between 15 and 19 years old, the pupils enrolled in the special education schools and units completed their formal education (except for the small number who were at a secondary school or a tertiary institution).

Table 14. Characteristics of three education support services not shared with recognized special education services

Focus of service	Professional staff	Location	Administration
Speech and/or language handicaps	Speech therapists some psychologists and specialists teachers	One or two special schools hospitals and private premises	Health service, private practice Ministry of Education
Maladjustment/ social and/or emotional disorders	Teachers (usually not specially trained)	Re-education centre (Seychelles) residential institutions (Kenya, United Republic of Tanzania, Zimbabwe)	Government departments other than education i.e. welfare or home affairs
Slow-learning pupils, mild to moderate mental handicap, 'remedial education'	Specialist teachers	Resource centres (Zambia) ordinary schools, through pupil support programmes (Seychelles and Zambia)	Ministry of Education, but not through special education staff

Whatever the age or level at which any of these young people finished their formal education, they then moved into a world where their chance of finding any further education programmes, formal or non-formal, which made provision for their disabilities was minimal or nil. Furthermore, only a minority of them would have continued access to the braille material, tape recorder and cassettes, hearing aids, typewriter or other aids which had helped them at school. Even so, they were often better served than those adults who became educationally handicapped as a consequence of an illness or accident and who would usually not have access to any rehabilitation service either 'institution' or 'community' based.

Vocational training and placement

Reliable statistical comparisons are not available, but discussions throughout the sub-region suggest that, in the strong competition for paid employment throughout eastern and southern Africa, handicapped people were seriously disadvantaged compared with their fellows in more developed countries. Some jobs were inevitably closed to people who had more serious handicaps; the restrictions in these developing countries were increased owing to the limited access to each rung on the ladders of educational and vocational training. Few mastered basic literacy and numeracy skills; fewer still passed the successive primary- and secondary-school national examinations, or gained a university qualification or its equivalent. Thus most were automatically excluded from many occupations and professions. Some succeeded educationally, then failed to gain admission to training courses, or find a job appropriate for their training and other abilities. The general absence of legally supported guidelines to protect handicapped persons against discrimination and the still prevalent public perception of persons with handicaps as basically different further penalized them in the competition for vacancies.

Some did succeed, through their ability, support, persistence and good luck. There were blind teachers in schools in Kenya, the United Republic of Tanzania, Zambia and Mauritius in 1983; and there were certainly a few locally-born and educated paraplegics working in city offices who drove to town each working day in their adapted cars, transferred to their wheelchairs to get to their office buildings, had good access to their own desks and to suitable toilets, and could work effectively. At a less skilled level, many handicapped people found some employment which may or may not have met their essential needs. Others contributed as best they could to the home activities of their family or the people with whom they lived, and in some countries some begged openly. No government financial support programmes by way of continuing pensions or allowances were reported.

The five seminars all noted vocational disadvantages faced by handicapped persons, the general shortage of vocational training programmes specifically catering for handicapped adults or school leavers and the limited emphasis which most special education services placed on pre-vocational education programmes. By this they meant teaching programmes intended to help pupils to learn as well as they could the language, mathematical and social skills, and the behaviours and the basic knowledge of the world outside their school, necessary for a successful transition to life outside school. Seminar members saw room for considerable expansion and refinement of this pre-vocational education at comparatively little cost, given a wider recognition of its importance by teachers, teacher trainers and educators.

Some special schools had moved beyond pre-vocational education to offer specific vocational training to their older pupils and employment in a production workshop. Those schools with which these programmes were discussed would have much preferred them to have been set up elsewhere by some other organization, with which they might have been linked in some way. They regretted that their senior pupils could not follow the same pattern as other young people and leave school with its inevitable implication of social subservience to find their vocational training and employment elsewhere. Providing appropriate separate working and learning environments for senior school pupils and young adult vocational trainees on the same campus and under the same management could be difficult, and was never ideal. However, the staff involved were satisfied that they were right to establish these programmes in the absence of any alternative provisions. Jacaranda and APEIM special schools, in Nairobi and Mauritius respectively, were developing good progressions for their senior pupils through their 'pre-workshop' and 'workshop' training courses to sheltered employment. Zimcare had also developed some interesting progressions for its older students.

One further school-based programme which seemed potentially important reflected the interest expressed in several countries in providing programmes which would help mentally handicapped students to find full or partial financial independence by teaching the basic skills of animal and land husbandry. The programme was developed at Karatina Special School (see pp. 91 et seq.).

The Unesco project could not and did not try to locate all the vocational training and sheltered workshop programmes which accepted graduates from special schools. It learnt of a range of programmes through its seminars and staff contacts but some of these catered at least as much, and sometimes more, for adults requiring rehabilitation as a consequence of illness or accident.

Ethiopia has a quite well-known umbrella factory (it also makes dry batteries), set up ten years ago in Addis Ababa and employing some 200 handicapped adults. In 1981, some of its new employees came from one of the country's few special schools. Ethiopia also reported deaf students at one of its technical schools.

Kenya had two special technical schools for deaf students, one for men and one for women, which selected their pupils from those who had completed their studies at a school for deaf children. In 1982, the project staff visited the technical school at Nyangoma near Lake Victoria. It offered its male students a two-year vocational training course, during which they were expected to pass the first two stages of Kenya's trade qualification for their particular training course in such fields as tailoring, carpentry and masonry. They were taught by qualified trade instructors in tandem with an experienced specialist teacher who provided necessary tuition in mathematics and language, together with an orientation programme intended to help them prepare for their life in the adult world. The school staff reported that most graduates had little difficulty in finding paid employment on the open job market.

By 1982 Kenya also had basic-level skill-training programmes for handicapped students at a number of its rural institutes of technology and at some specific training centres for blind and physically handicapped persons. All these programmes were reported to accept school leavers. Those at the rural institutes were potentially important in terms of their capability to adapt their programmes, within limits, to the employment possibilities in the districts they served. An innovative small support and guidance project, developed by a bank and the support organizations for the blind, helped selected blind adults to finance and develop small businesses with the active involvement of financial and appropriate professional advisers. As the establishment loans were repaid, new clients would be helped.

Malawi was unique in the sub-region in having a statutory Council for the Handicapped (see pp. 109 et seq.) which had taken the initiative in planning and establishing (sometimes with outside help) a number of effective training and employment programmes for handicapped persons, for example, an effective training and placement programme for selected blind men assessed as able to succeed as indpendent small farmers given initial training and support; financially independent weaving and tie-dying factories staffed by handicapped persons; and, in collaboration with the ILO, a substantial assessment and training centre.

In *Mauritius*, APEIM, one of the two private organizations serving mentally handicapped young people, had a strong continuation programme for persons above school age. It offered separate 'pre-workshop' programmes for young men and women, and a training workshop, for twenty men aged 16 to 30 years, focusing on simple woodwork, horticulture and industrial packaging. A training workshop for women was being planned. The workshops were on the school site because no other facilities of this kind were available in Mauritius and so the school was developing them, though it thought they would be better placed elsewhere.

Seychelles' comprehensive rehabilitation centre for disabled persons, established with outside help, also catered for the handicapped young needing special training to prepare them for effective participation in adult life and the national economy.

Swaziland opened, in 1981, a rehabilitation centre at M'babane, a joint project with the ILO, to assist handicapped school leavers as well as disabled adults.

Zimbabwe's handicapped had been greatly helped by the vocational training and sheltered workshop services developed principally by two agencies, Zimcare and the Jairos Jiri organization, enrolling people with a wide range of disabilities.

These short comments illustrate some of the variety of vocational training programmes catering for handicapped persons in the sub-region. There is infinite room for developing more technical schools such as Kenya's to offer handicapped school-leavers the opportunity to gain full trade and technical qualifications, and for training programmes similar to those outlined. The ILO was taking important initiatives to help ensure that the best use was made of the limited resources available, including the establishment, in its African regional office at Addis Ababa, of a position for a senior adviser on services for disabled persons. The ILO wanted to establish effective working links with Unesco and WHO in developing soundly based vocational assessment and training programmes for handicapped persons, including school leavers, and was exploring three complementary approaches.

The first approach supported enrolling handicapped persons in all appropriate vocational training programmes, from those designed to teach the basic technologies appropriate to the needs and resources of rural communities, through courses such as those at Kenya's rural institutes of technology and village polytechnics to full professional training courses. The second was its support for assessment and training centres such as those in Malawi, Seychelles and Swaziland. Thirdly, the ILO was planning to establish an African Rehabilitation Institute whose regional base and associated five satellite sub-regional centres (to serve the whole continent) would help governments to plan, train staff for, and evaluate the work of training and employment programmes for disabled persons. The ILO also wanted to foster good working links between school services for handicapped pupils and these programmes, and to ensure appropriate and effective educational components.

Staff training

The project did not investigate special education service staffing during the first phase of its work. From considerable discussion and classroom observation, a typical class emerged of nine to twelve pupils, suggesting a total teaching staff of 1,100 to 1,450 in the sub-region to cater for 13,500 full-time special education pupils. Some classes were taught by uncertified teachers, a great many by trained teachers with no specialist qualification, and an increasing minority by teachers with appropriate specialist training gained either in the sub-region, elsewhere in Africa, (West Africa or Tunisia) or overseas. The pattern varied considerably across the sub-region as a function of training opportunities available in particular countries and the different specialities within special education itself (see Table 15).

Table 15: Special education teacher-training programmes in 1983

Country	Category and enrolment target					Course duration (months)
	Visually handicapped	Hearing handicapped	Physically handicapped	Mentally handicapped	Remedial education	
Kenya	10-15	20-25	-	20-25	-	24
Malawi	10-12	10-12	-	-	-	18
Seychelles[1]	-	-	-	-	-	24
United Republic of Tanzania	10-12	10-12	-	5	-	18
Uganda	10-15					12
Zambia	10-12	10-12	10-12	10-12	10-12	12
Zimbabwe	15	-	-	-	-	12
Totals	65-81	50-61	10-12	35-42	10-12+	

[1] Enrolments not reported

The courses recruited trained teachers, usually with successful classroom experience in ordinary schools or special education. They did not always manage to fill all their available places, partly due to the very limited or non-existent special education component in local education administration, and perhaps also because most of its work was in separate special schools which other teachers in ordinary schools would usually visit only occasionally, if at all. The table reflects the early attention given to services for children with sensory handicaps, the later attention to mentally retarded children, and the very limited resources allocated to training teachers for children who had other learning difficulties. It also reflects the continuing professional and financial support which the Royal Commonwealth Society for the Blind had offered for the training programmes for teachers of visually handicapped children. The society assisted Zimbabwe in establishing its first training course late in 1982. The United Republic of Tanzania's course for teachers of mentally handicapped children dates from 1983, as does Seychelles' course in remedial education. Zimbabwe planned to establish a course in hearing impairment in 1985. Allowing for their differing durations, the other thirteen courses noted in the table together graduated the equivalent of 110 to 120 specialist teachers in 1982, perhaps two-thirds of whom would work with blind or deaf children.

The courses varied considerably in terms of staff qualifications, experience and non-teaching responsibilities, which could sometimes significantly affect tutorial duties. They varied also in the standard of their premises and teaching resources. Some were short of books, journals and other professional supplies to a degree such that their programmes were inevitably affected. Some gave surprisingly little time to actual teaching practice for their students.

Two important developments occurred in 1981-83. As mentioned earlier, Kenya and DANIDA agreed to establish an institute for special education which would assume responsibility for all related teacher training. Planning then envisaged that all trainees would share a common and substantial basic course focusing on the identification, assessment and education of all children with significant learning difficulties. They would study their particular specialist area later. This broad training would help them in their own specialist field and to act positively, either personally or by advising others, to assist children with other kinds of handicaps. They would be able to provide a most useful service to parents and to these children themselves as well as to other teachers.

The project started by the Zambian government and SIDA in 1981 was equally important. SIDA provided both an experienced consultant and agreed resources for a joint review and upgrading of the special teachers' college in Lusaka which gave all the special education courses (except that for 'remedial' teachers, who were trained at Mufulira Training College in north-west Zambia). This thorough exercise, which continued beyond 1983, was intended to provide training of a high quality, geared to the tasks which its graduates would actually meet in their work, and a common core for all four courses.

The courses in Uganda, Malawi and Zambia (except that focusing on remedial education) were located away from other teacher-training programmes, which took place in training colleges preparing first-level teachers and sometimes others as well. When the Kenya course moves from teacher-training colleges to the new institute, they will also lose their direct contact with other teacher-training courses, which only the United Republic of Tanzania and perhaps Zimbabwe will possess. This pattern of separate staff training appeared to reflect and support special education's general and continuing distance from the mainstream of education.

Some of these teacher-training programmes, and particularly the two in Malawi, set up the first continuing links special education staff in the sub-region by accepting enrolments from other countries. The Malawi programmes were started by teaching brothers from the Netherlands in 1968 at the invitation of the Malawi government. With some continued external support, they have aimed to serve both that country and others needing trained teachers of deaf or blind children. By 1981, twenty-five of the seventy-eight enrolments in the programme focusing on visually impaired children had come from six other countries in eastern and southern Africa, and a further three from West Africa. Through this policy, the programme had contributed a great deal to the quality of the special education which its English-using neighbours provided, and it continues to do so. At the same time, it has given its students some links with colleagues from other countries which few other educationists have enjoyed, except for a limited number in senior positions.

The other important avenue for gaining specialist training has been scholarships for study in the United States or Europe. This was the only available avenue before the courses in the sub-region were opened and was still used by some countries in 1981-83 to obtain teachers with a first-level qualification in special education. By then, it was particularly important as the route to advanced study, particularly for those who held or hoped to obtain a university or teacher-training college post. There was naturally considerable interest among teachers in the possibility of training overseas, and some of the available courses could still demonstrate innovative teaching methods and equipment not yet covered in the sub-region's courses. However, this point could not outweigh the increasingly strong case for providing all first-level training in the sub-region as the available courses were extended and strengthened, and as they developed programmes relevant to the realities of education in Africa, which no overseas course could ever offer.

The same prospect faced the universities in the sub-region as they developed studies related to special education. Every country (except perhaps Seychelles) had one tertiary-level institution identified as a university or university college. By 1982, those in Kenya, the United Republic of Tanzania, Zimbabwe and, to a lesser extent, Zambia offered some courses relevant to the education of handicapped children, but they did not provide recognized specialist teaching credentials. These came through the training courses just discussed.

Kenya and the United Republic of Tanzania had plans for considerable extensions to their university courses, offering undergraduate and postgraduate studies, as soon as these could be funded as part of the wider provision of special education. Some courses were already available up to doctoral level, but they did not yet include continuing high-level professional studies in, for example, the education of mentally retarded children. Senior university students had been helped to study overseas, but this was extremely costly.

Even if a sufficient number of places could be provided on courses outside the sub-region, the criticism already made of external specialist teacher training would be equally valid for university study, except perhaps for some senior students focusing on specialized topics. Local courses would relate much more effectively to the needs, resources and priorities in the sub-region. In the process, their research would add immensely to the present limited information based on people with learning difficulties and the services which assist them, and, as had happened elsewhere, the introduction of special education studies at university level will have a slow but definite impact on the work of staff in related fields (child development, educational psychology, sociology, medical courses and so on) and in time will generate further studies and generally more positive attitudes towards handicapped children and adults among university staff and students.

The Unesco project staff sensed that the four universities already involved to some degree in studies related to handicapped young people could be interested in exploring possible co-operation in developing sound study and research programmes to serve the sub-region. This could involve particular universities giving priority to some aspect of special education, for example, teaching deaf persons. The network of tertiary-level African institutions co-operating in teaching engineering technologies developed by Unesco and the United Nations Development Programme

(UNDP) had shown the value of this approach. At a small seminar held in Zimbabwe early in 1984, representatives from these universities agreed to consider this important matter further with Unesco.

Full-time training courses are important components of effective special education programmes, but there is no way in which they can be provided in the foreseeable future for all the eligible teachers in the sub-region. However, this deficiency need not prevent further healthy progress, provided that alternative in-service training programmes are available and that senior teachers are able and willing to support them and to encourage their colleagues to use them.

Discussions throughout the sub-region revealed a variety of in-service training methods. They included: observation visits to special schools and units, usually for newly appointed teachers at special units; school-based programmes organized by the staff of both residential and day special schools; short seminars (up to one week), usually organized by a ministry of education; voluntary study groups meeting outside school hours; and vacation courses organized by a variety of agencies.

These programmes encountered the same hazards still faced elsewhere: some teachers were not really interested: some were prepared to participate if others would do the work; and funds for travel, accommodation and other costs were usually very limited. Despite these handicaps, some very good programmes were organized. The project staff contributed to three: the first major seminar for special education teachers in Mauritius; the first seminar for head teachers of special schools in Zimbabwe, also held early in 1983; and a seminar for Kenya teachers of deaf children held at a residential school outside Nairobi.

None of these seminars were part of a series with planned preparatory or follow-up work for their members to increase and help sustain their impact, but participants' responses certainly showed genuine interest in topics seen as relevant to and realistic for their work and aspirations. This was also true for the Unesco project's five seminars held in 1981 and 1982 for senior special education staff, including administrators and persons from related disciplines and agencies from across the sub-region.

The seminars also highlighted participants' limited access to professional books and periodicals, their few opportunities to discuss developments in their own field with knowledgeable colleagues and their even less frequent contacts with colleagues in related disciplines also providing services for disabled children and their families. Multi-disciplinary seminars aimed at more effective co-operation nationally or locally were uncommon, and those held were often reported as not very productive.

One problem for the countries with minimal services (and for the more fortunate countries as well, except in their major cities) was the shortage of people with the time, background and funds needed to run staff training programmes for special education personnel. The topic was not surveyed in detail, but it did seem that more could have been done by the available personnel if those controlling the purse strings, particularly governments, increased priority even slightly in their planning and in existing budgets.

There was a very strong case for a substantial extension of the in-service training programmes in all the associated countries to serve both as an accepted alternative to a full-time training course where this was not available, offered perhaps through an amalgam of correspondence studies and seminars, and as a key support for each teacher's continuing professional competence. This could provide a major contribution towards improving the efficiency and sometimes the morale of special education staff. The Kenya Institute planned to become actively involved in in-service training, and it may well develop some innovative approaches worth consideration by other countries.

The group within special education then (and now) least likely to receive adequate training of any kind related to their work was the child care staff working in the residential special schools in the sub-region. They were usually appointed by the school head teacher and learnt their work on the job from colleagues. Only one full-time training programme focusing on residential child care was identified, at Montfort College, the Malawi specialist teacher-training college.

A small minority of the head teachers and senior special-school teachers who attended the project's seminars or whose school was visited reported that they had a planned orientation programme which all their new child care staff were required to complete or some kind of continuing training programme for this group. This meant that, depending on their pupils' disabilities, some head teachers had no assurance that their care staff had any training in how to speak with a deaf child, clean a hearing aid, help a blind child learn mobility skills, teach a mentally retarded child basic self-care skills, or act as a supportive parent substitute for quite young children. The pupils were deprived of positive reinforcement of useful skills which their teachers were presumably teaching them, and they might face clear interference with that learning from their hostel experiences.

This brief review of staff training highlights the central roles of local administrators in supporting the development of school and district-level in-service training, and of special school head-teachers in planning and implementing continuing programmes for all their staff, recognizing that they must rely principally on available local resources, outside input being a most welcome bonus. Some head teachers, including some at quite isolated schools, gave this facet of their work a reasonable share of their busy time, but others clearly did not.

The training programmes available to the other professions serving disabled children were similarly limited or non-existent. All the associated countries had either a training programme for medical doctors or on-going agreements for training elsewhere, but by the standards of developed countries they were thin on the ground. Medical specialists were even scarcer and were concentrated in the cities and larger towns. Some of the larger countries were developing training programmmes in surgery, paediatrics and psychiatry. By 1982, Kenya had trained thirty-four paediatricians, some of whom were working in rural centres and a further forty-seven were in training. However, most medical specialists still obtained their credentials outside the sub-region.

The extension of first-level health care to rural areas had paralleled the provision of first-level schooling as one of the major social goals of all the countries in the sub-region. Much progress had been made, but much remained to be done before all families had a clinic in or near their village. Clinics were staffed primarily by trained nurses, most of whom had no special knowledge of rehabilitation medicine. Opportunities for further training were limited but, with WHO support, some countries were providing short courses focusing on the health and developmental needs of disabled children and their families, and hoped to increase this provision.

For all its gaps and problems, the medical picture was considerably brighter than that for other rehabilitation services. No training programmes for speech therapists, physiotherapists or vocational training/sheltered workshop staff were located, and only one, in Nairobi, for occupational therapists. In 1981, project staff assisted a Kenya government study group to sketch a training programme for speech therapists. No action had been taken on its report by 1983.

However, for all its gaps and difficulties, the teacher-training programme area was generally one of the most active sectors in special education, containing training-college and university staff who were obviously competent and committed to developing this important programme as rapidly as they could, and in ways which would meet the actual needs of teachers and other school staff.

Part Two

Five innovative special education and related programmes

5

A school agricultural training programme: Karatina School for Mentally Handicapped Children

Wanjiku Chege (Kenya)*

Karatina School is situated in Karatina, a small town with a population of about 45,000, in the Nyeri district of Central Province. The population of Nyeri district, according to the 1979 census, was 486,000, of whom 165,000 were aged between 5 and 14 years. The main occupation is small-scale farming. One of the largest open-air markets in Kenya is at Karatina and trades mainly in crops harvested by the community. This school was established on 9 June 1979 by a United States Peace Corps teacher, Ruth Synder, a Kenyan teacher's aide and a cook. It was started in a two-classroom block owned by the Karatina County Council nursery. The six mentally handicapped children who were the school's first pupils shared the nursery school building with non-handicapped pre-school children from the same community.

The first sponsor of this school, the Simba Jaycees, a voluntary group of young businessmen (Nairobi), sponsored the lunch programme which facilitated the provision of lunch to all children in the school. By September 1980, the school had 19 children and a waiting list of over 200. To expand the programme to cater for more children, the school acquired its present site, a four-acre plot of land donated by the Nyeri County Council. In the same year, financial constraints forced the Jaycees to withdraw their sponsorship. The school then started looking for donors who could assist in constructing buildings the new plot. Action in Distress (later called Action Aid), a voluntary organization based in the United Kingdom, agreed to sponsor the programme. Another significant donor was Christoffel Blindenmission (CBM) of the Federal Republic of Germany, which paid its recurrent expenditure.

The first specially trained Kenyan teacher of the mentally handicapped was posted to the school in January 1981. Before then, the school was manned by two Peace Corps teachers and a British volunteer from Voluntary Service Overseas (VSO). In January 1985, there were six teachers (three specially trained) and nine non-teaching staff members. The teachers' salaries are paid by the Kenyan Government and those of the non-teaching staff by CBM through the school committee. All except the agricultural instructor joined the school when they were already trained. The agricultural instructor was sponsored by Action Aid to be trained at a local farmers' training centre.

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The school is run by a management committee composed of parents, local leaders, sponsors, government representatives and professionals working with mentally handicapped persons.

The school curriculum

The school trains the mentally handicapped for integration into the normal stream of education and their own community, for successful further training and for easier placement for on-the-job training (apprenticeships). These objectives can be achieved by an all-round curriculum which does not restrict the potentiality of the pupils. A paper for instructors in vocational rehabilitation centres in Kenya stated:

> A lot of training is offered in some vocational centres and schools which is not relevant to the needs of the community. This results in the production of workers who cannot benefit from available resources in their community. As such no vocational training programmes should be planned without a careful assessment of current and projected community needs. (Chege, 1983)

Karatina seems to have carefully followed the above recommendation in designing its curriculum, as it is very much aimed at training for adjustment so that mentally handicapped persons can function fully as contributing members of their community.

Programmes in the school

There are three main programmes in the school which are all interrelated and expected to achieve the above objectives.

Academic training. Three classrooms are in operation with a total of thirty children. The academic curriculum in all classes is based on the acquisition of the academic skills needed for independent survival in the community.

Pre-vocational training. All children are introduced to pre-vocational training from Class I. Activities for daily living are emphasized at this level, where children are taught simple cooking, sewing and knitting, woodwork and arts and crafts. The objective of these subjects is to offer these youngsters, both boys and girls, some basic skills needed in daily living such as replacing a missing button on a shirt, making a simple meal, cleaning the house or repairing a broken window. Workshop equipment, including tools for woodwork and sewing machines, was donated by CBM.

Vocational training programme. This is the ultimate aim of the whole school, and every teacher is supposed eventually to prepare the students to be self-reliant and earn a decent living through an income-generating occupation. There are two projects in this programme, animal husbandry and agriculture, both started by Jeremy Davies (VSO), the latter with the assistance of an Action Aid-paid Kenyan.

Animal husbandry

The school trains its mentally handicapped pupils to keep and earn a living through rearing cows, goats, rabbits and chickens.

Children in the playground
at the Karatina School for
Mentally Handicapped Children

Cow/rabbit/goat project. Low-cost timber was used for the construction of the animal house. It cost Action Aid about 10,000 Kenya shillings (Ksh) to build. The East African Women's League Nyeri branch donated the first two goats in 1982. They later reproduced and now number four. A local drama group, the Lavington Players, donated Ksh 4,000 to purchase a milch cow. The school later bought one more from a parent of one of the children. A government veterinary department donated three rabbits which had increased to fifty-four by late 1984. The objectives of the project are to provide milk and rabbit meat for the school lunch programme, to train the pupils in all aspects of small livestock care and to sell surplus stock to the people in the community. The cows and the goats graze on the school's one playing field; the rabbits are fed by pupils using weeds from the farm.

Poultry project. The Canadian High Commission in Nairobi sponsored this project by donating Ksh 12,000 for the construction of a poultry house, buying the chicks and the feed. Started in October 1981, the project's main objective is to promote community-based vocational training based on the occupations of the residents of Karatina. The project also produces eggs for the lunch programme. The children are trained to feed the ninety-eight chickens, collect eggs and clean the shed.

The agricultural project crop production

Agriculture has continued to play a significant role in Kenya in raising the living standards of the rural population, as explained in the 1979-83 development plan, which states that 'the rural population depends on its own agriculture producation to the extent that it is reflected through the non-monetary sector which is 20.6 per cent of Gross Domestic Product (GDP)'. (Kenya, n.d.)

The Government is motivating farmers to produce more for themselves and for the country as a whole. The choice by the staff of Karatina to emphasize agriculture in their vocational training programme was therefore very wisely made.

Aims and objectives.

The of the project is to operate a vocational agriculture programme with the following objectives:

To train mentally handicapped pupils to grow foodstuffs in a practical environment which will assist them to be less dependent on the local community when they leave school. This independence will make them contributing members of their society.

To promote a therapy programme using agricultural/horticultural resources as a means of self-actualization, and to facilitate the development of the pupils.

To produce food for the lunch programme.

To instil a sense of responsibility and ownership through the care and maintenance of crops.

Organization of the programme

The three activities in this programme are work on the school farm, training on individual plots and extension of training on home plots.

Work on the school farm. Agriculture, a subject in the timetable of all classes three times a week, covers both animal husbandry and crop production. The first two classes are taught pre-agricultural skills while older children practise farming in the school *shamba* (plot). The common school *shamba* covers about an acre of the training plot, while the individual plots use the remaining acre. There is one teacher in charge of agriculture as a subject, but actual planning and supervision of work on the farm is done by a locally trained agricultural instructor who is paid from school funds.

There are two gardeners who also help on the farm and in taking care of the animals. The school plot has separate demonstration sections with vegetables such as collard (locally known as *sukuma wiki*, a very common food for most Kenyans), carrots, tomatoes, onions, beans, and with various fruit trees such as orange, banana and passionfruit growing in different places. The pupils are instructed how to grow and care for these crops. They are divided into three groups, and each group works on the school plot once a week. The harvest is used in the lunch programme, thus reducing its cost. Any remaining food is sold at the local market.

Individual school plots. Thirty children out of an enrolment of forty-three are allotted individual plots, each about 44 m^2, though some more able children have bigger ones. The idea of individual plots was developed by another VSO volunteer from the United Kingdom, Carol Williams, who joined the school in January 1982 to replace Jeremy Davies, who left at the end of 1981. Ms. Williams, who had a BSc (Hons) in Agricultural Botany, was a very competent worker and a good agricultural scientist. She also had basic mechanical skills and some specialised livestock skills. She proved to be a very resourceful member of the staff, who continued the agriculture project and extended it to the homes of these children. Her activities were sponsored initially by Action Aid and later by CBM.

Each student selects the type of crops to plant with the help of the agricultural instructor. Seeds and fertilizers are provided free, and in return the harvest is given to the lunch programme. The staff supervises the work at the plots, but responsibility for managing the plots is left to the individual students.

The common crops planted in the individual plots are maize, beans and potatoes. Students are free to select one crop or a combination of two or three. The children rush to collect their farming tools and then go straight to work in their plots without a reminder from the agricultural instructor or the teacher in charge. After an hour's work of weeding the plots, they collect their tools, put them in the store and go to wash themselves prior to going home.

Extension of agriculture training in individual home plots. The training in crop production offered in the school is now continued at home. Twenty children have been given plots by their parents to practise the same skills which they learn at school. The students plant the same crops as in their individual plots at school. All the children are given seeds and fertilizers for their home plots as an incentive for their work done in the school plots. The harvest from the home plots is sold by the students and the money is saved for future use.

Parental involvement. The agricultural instructor visits the home of every student who has a home plot at least twice every month. During his visits, he discusses with the parents and other family members the need for parental involvement in the activities of their children in their plots. Parents are encouraged to supervise their children and encourage them to continue working their plots in the instructor's absence. Parents are also expected to help with difficult tasks, such as, spraying tomatoes, harvesting and storing crops. Most are committed to this responsibility and are very happy with the achievements of their mentally handicapped children, who previously were uninterested in work and were generally considered to be lazy.

The following is a summary of observations made recently in the homes of three pupils who have been very successful in their plots, both at school and at home.

1. Njeri is very active in her plot and does most of the work herself. She has planted maize, potatoes and tomatoes. Her parents helped her to plant potatoes. Njeri prefers working on her own plot instead of helping with the family plot, which is about five acres. It contains similar crops with the addition of bananas, carrots, cabbages, sweet potatoes, oranges, etc. Njeri is the fifth child of a family of twelve. She was recently delivered of a normal child at home and thus it is important that she starts to be responsible and to think about how she can earn her living. She has harvested maize, potatoes and some tomatoes, and sold her maize; her father set the money aside to buy her a plot in future when she has earned enough money.
2. Joseph showed us his eight rabbits which he has managed to breed from two he got from school (all the children with home plots were each given two rabbits, a male and female, to raise at home). His 9 years old brother, is also very interested in the rabbits and helps in feeding them. Joseph also has a plot which is larger than the one he has at school. He has planted tomatoes, maize and potatoes. When we visited him, Joseph was busy putting in the sticks to tie the tomato plants. His mother has given him a lot of support in the plot, providing additional spray for the tomatoes and training him to weed. Joseph usually watches his mother working in the family plot and learns from her activities, which he then transfers to his plot. He also works in the family plot with the other children but prefers working in his own plot.
3. Mugweru is 21 years old. His handicap is said to be hereditary, as his sister also has a son who is very slow in learning. Mugweru had attended primary school for seven years before joining Karatina School. When we visited him, we found him feeding a goat. He also showed us his well-constructed rabbit hutch with its two rabbits. We met both his parents who are quite elderly. The mother told us that Mugweru is very helpful at home and helps in washing dishes and taking care of young children. On his plot, which he and his mother showed us, he had planted beans and maize. His mother told us that Mugweru has changed a lot and can now take care of himself and also earn a living through small-scale farming.

Short-term and long-term benefits of the project. The harvests in the school plots aid the school considerably in the lunch programme, contributing an estimated Ksh 1,000 of the Ksh 6,000 per month budgeted to feed forty-three children as well as milk, eggs and rabbit meat.

The long-term benefits of this training are primarily agricultural skills development and the implantation of a sense of responsibility and love for work: these young people are growing into adults and learning an income-generating occupation. Through this involvement, they can feel important as they contribute to their own well-being and to that of other members of their community.

> If disabled persons are engaged in food production such as growing vegetables, their village may no longer need to buy vegetables from outside; they can be helped to start poultry farming so that the village can have more eggs, or they can keep cows to supply the village with milk. The community can then improve the quality of food that they eat so that they can enjoy better health. (WHO, 1980*b*)

Strengths of the programmes

Most of the strengths of the programme have been explained, particularly community involvement and commitment, and vocational training. Parents frequently come to school to help in whichever way possible. For example, when the Jaycees withdrew their sponsorship, community members contributed food crops from their homes for the lunch project. The recent government involvement in providing teachers is also a big help. The school is at present constructing two classrooms and a dining hall and hopes to build some teachers' houses if more land is donated. Its present four-acre plot now limits its further development.

Replicability.

In spite of these weaknesses, the school has achieved a lot. The project is very practical and expenditure is low. Recurrent expenditure is subsidized by agriculture products which are consumed at the school or sold to meet other expenses. The school's water is donated from the nearby *harambee* (self-help) water pipe. A local doctor provides free medical services to the school's children. A carpenter from the nearby Kerugoya School for the Deaf provides part-time help in the woodwork shop. Most of the teaching materials are collected or made by teachers. Materials such as cartons, cardboard and empty tins are usually given free by local shopkeepers while others are collected from the market, especially vegetable leftovers for the animals.

These examples illustrate how a rural school can reduce its capital and operating costs considerably by utilizing existing services in the community and by involving community leaders who can donate land for construction of the school (as it happened in Karatina) and other members who can provide their services free of charge or at a minimal cost.

The capital development of the school was also undertaken at a very low cost: the builders used materials from the same area used in constructing housing in the village. Most of the animal sheds were constructed with very low-cost timber from a nearby saw mill. The school contracted with a village polytechnic in Karatina for non-handicapped primary school leavers to construct the classrooms, thus reducing labour costs. Other schools in rural areas should have no a problem in getting parents to provide pupils with home plots. They seem very willing to provide these plots if they are approached properly and the need for continuation of training offered in school at home is explained. The present Karatina agricultural instructor was trained at the farmers' training centre in the same village.

The most important thing in starting such a programme is to interest the local community whose involvement can attract foreign donors. The project should operate on a small budget which the community can continue to sponsor through self-help efforts.

Conclusion

Vocational training is indispensable for many disabled persons, and beneficial to most. The skills acquired lead to the acquisition of self-confidence, the lack of which can be a greater handicap than the disability itself. The Karatina experience has shown that some well-trained disabled persons can perform as well as their able-bodied counterparts; mentally handicapped persons can be trained to be contributing members of their society through smallholder development. In Kenya, this has proved to be particularly effective in land use intensification, facilitating income growth and creating employment for many who may otherwise never have had a chance of enjoying an income of their own. As Karugu (1984) stated, 'It is only when handicapped workers are fully integrated and adjusted in working with non-handicapped workers that educators can feel to have successful and effective rehabilitation programmes'.

The Zimcare Language Programme

Photo by: T. Colvin for the Zimbabwe Ministry of Information

6

Developing more effective teaching programmes for intellectually handicapped children

*S. L. Templer and B. M. Galloway**
(Zimbabwe)

Background Information

In Zimbabwe, the Ministry of Education provides education for the mildly mentally handicapped through special classes. Long-term hospitalization and nursing care for the profoundly retarded are the responsibility of the Ministry of Health. Zimcare Trust, a registered welfare organization working nationally to provide education and care to the middle range not catered for by the government, was created in 1981 from a merger of four welfare organizations then working with the mentally handicapped; it provided six schools and two adult centres. By 1984, six more day schools and an adult training workshop had been opened in different areas of the country, including a teaching unit for the profoundly retarded in a government hospital. Zimcare Trust is financed by approximately one-third from government grants, one-third from fees charged and one-third public from donations and foreign aid. The pupil/teacher ratio in Zimcare schools is about ten to one.

With a total enrolment of 894, Zimcare Trust is now one of the largest welfare organizations in Zimbabwe. However, the great majority of mentally handicapped people, particularly those in the rural areas, do not have access to its services. Consequently, priority is now being given to developing an outreach programme to deliver home-based learning to rural areas.

As well as making its services available to greater numbers of mentally handicapped people, Zimcare Trust is concerned with improving the quality of its services. To this end, an eight-member Training and Development Unit has been created comprising staff members responsible for the rural programme, staff training, curriculum development, assessment, pre-schooling, public awareness campaigns, counselling and other services throughout the country. The description below sketches the work of this group up to November 1984 in preparing a new language teaching programme, the first of a series designed specifically for Zimcare schools and based on direct instruction strategies.

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Rationale

The theory of Direct Instruction was introduced in Zimbabwe in 1982 at a Unesco seminar on effective teaching of the mentally handicapped. At this seminar, Dr Alex Maggs presented a comprehensive teaching strategy initiated in some developed countries which offered better teaching of language, reading, mathematical and vocational skills than had been achieved through any of the existing curricula known to be used in the present schools for the mentally handicapped in the sub-region, namely, Direct Instruction. It is a teaching technology (developed primarily by Engelmann) based on empirical behaviour theory with emphasis on logical analysis and exact programming of concepts, operations and rules which constitute an instructional sequence. The philosophy underlying Direct Instruction is that children learn what they are taught; programmes are designed with the view that, while children differ, the skills they need to learn do not.

As a result of this seminar, Zimcare introduced pilot projects in two of its schools, using Direct Instructions Systems for Teaching and Remediation (DISTAR), an American teaching programme based on Direct Instruction. Research evidence and limited experience in Zimbabwe with the two pilot projects indicated that these programmes, supported where necessary by behavioural management, effectively teach all children basic foundation skills. This supports the view held by numerous educationists that many children are retarded not because they *cannot* be taught but because they *have not* been taught appropriate skills by other people or their environment. This is particularly relevant in Zimbabwe where traditional beliefs often preclude acceptance of a child as handicapped, and hence diminish opportunies for learning.

Whilst seemingly based on the work of Skinner, many positive contributions to the development of Direct Instruction have come from the work of Piaget and Bruner in their descriptions of stages of cognitive development. However, a principal difference appears to lie in the suggestion that the behaviourist is more concerned with the procedures to develop cognitive structures than in describing how they develop.

Development

Becker et al. (1975) maintain that the Direct Instruction model is especially important for beginning skills and for the 'hard to teach' child. Following the Unesco seminar, Zimcare Trust educationists agreed that the model's educational concepts and proposed implications were exciting and relevant, and promptly initiated the DISTAR pilot project. However, Zimcare is responsible for eleven schools and it seemed unethical to give some children greater opportunities of outcome than others in our care. We therefore decided to produce our own programme using Direct Instruction technology and techniques, but using more culturally appropriate script and diagrams.

Language is the means by which we communicate our feelings, needs and thoughts to others. Inarticulate speech or absence of verbalization appears to be one of the prime factors which seriously retard learning and make the mentally handicapped child more conspicuous in society. The Bullock Report (*A Language for Life*, 1975) agrees that the development of language cannot be left to chance on the principle that a relevant moment will occur. This area, therefore, seemed the appropriate one in which to start developing a programme.

Initially the objectives were stated (many taken from DISTAR Language 1) and all the skills, concepts and operations that needed to be taught were sequentially listed. Lessons were then carefully scripted to teach concepts, operations and rules to achieve communicative competence in all students. Scripted lessons are an integral component of Direct Instruction.

To achieve relevancy and authenticity, the concepts being learned reflect the pupils' own cultural environment and social context, while at the same time teaching actual language skills. As a result, as previously stated, all the illustrations are oriented towards traditional contexts. These are all black line drawings which are very cost effective and reflect the view that colours and details distract the learner from the actual concept being taught.

In many instances, positive and negative examples are juxtaposed in the presentation to teach a concept, for example, the teacher points to appropriate pictures and says, 'This boy is standing. This boy is not standing.' Research evidence by many leading educationists cited by Tennyson and Park (1980) indicates that concepts are better taught in such a way, showing the minimum and maximum range of difference. This precludes teacher error and ensures a single interpretation of a concept. Direct Instruction technology includes four basic rules in relation to programme sequence and design: where possible teach a general case (teach a rule before introducing specifics), keep errors to a minimum, teach the essentials and provide adequate practice.

As a basic premise of Direct Instruction is that handicapped children need more time and more practice, sufficient verbal practice is a major intention in the design of the Zimcare programme. However, financial constraints prohibited each new concept being scripted many times. Teachers are therefore instructed to teach a particular task until the children have mastered it; they are also encouraged to elicit a newly developed language response in a variety of settings, in the presence of a number of different people and over an extended period of time to ensure the functional reality of that response. The Zimcare language programme scripts (see p. 000) include various practical activities utilizing the environment and limited available resources to extend a language concept; a language kit comprised of picture blocks, shapes, beads, etc., is supplied to each teacher. The blocks are particularly useful as they can be used for sequencing events, part/whole relationships and classification as well as the other more obvious pre-reading and mathematical skills.

Another basic intention of this and other Direct Instruction programmes is to ensure that every child achieves mastery at every level. Review lessons and criterion-referenced mastery tests are incorporated in the programme every ten or twelve lessons. Criterion-referenced test items include only what has been taught; to display mastery the child must achieve a previously determined degree of success, not lower than 95 per cent. Each test follows Becker and Engelmann's (1976) prescription that it be a systematic procedure for assessing some behaviour, that it specify the stimulus conditions under which the behaviour occurs and that it gives the response requirements. The tests are given to each child individually because group tests, albeit economical in terms of time, afford no opportunity for detailed observation.

Ideally, all educational programmes should be pre-tested for effectiveness under specified conditions. This ideal, however, was unattainable in view of Zimcare's financial constraints and the necessity to introduce programmes quickly into the schools where they are being tried. The mastery tests in this programme will therefore be used for many purposes.

1. *Pupil performance.* This is a criterion-referenced test which evaluates performance in terms of mastery rather than a degree of achievement. The goal of each test is not to grade students, but to determine whether they have achieved specified objectives and can continue in the programme.
2. *Remediation needs.* As these tests are criterion referenced, they identify specific problems and clearly indicate what must be done to remedy them. The test results alert the teacher to the fact that an individual pupil or the group as a

whole need firming on a particular task. Test results in larger classes may also indicate that a group needs to be split or advanced as a whole.

3. *Teacher effectiveness.* Criterion-referenced tests are particularly useful in ensuring that the programmes are appropriately implemented. If poor overall results are obtained in one class while they are satisfactory in others which are similar, it may indicate that the teacher needs extra support or further training in the required techniques.
4. *Programme effectiveness.* It can be argued that standardized tests are inappropriate for designing quality control measures. However, the tests in question, being criterion referenced, will provide information so that specific decisions can be made to improve a particular programme. If certain items are failed by students in several classes, the corresponding task in the programme would need to be revised at the end of the trial period. To facilitate review of the programme, teachers are requested to fill in a comment once each task is achieved.

Implementation

Prior to implementation of the programme, the teachers involved attended a four-day workshop on effective teaching which covered the methods and principles of Direct Instruction, theoretical considerations and classroom management techniques. They also attended a workshop in which the programme was presented and explained and required teaching techniques described and practised. This training is supplemented by a Teacher's Guide which research evidence suggests is an important element in curriculum innovation.

In addition to initial training, monitoring and support of the teachers in the classrooms is carried out. Maggs and Morath (1976) observe that many teachers using Direct Instruction have indicated that the training they were constantly receiving on the job is the most effective way of upgrading innovative competency skills. Once appropriate teaching behaviours are established, monitoring is continued on a monthly basis; eventually it becomes occasional. In the implementation of the Zimcare language programme, insufficient resource persons within the Training and Development Unit resulted in a tremendous work load on the staff available to monitor even lightly classes situated in all areas of the country. This precluded monitoring as frequently as is advised; nevertheless, the standard of teaching improved to some extent and the children are learning more than they were prior to the implementation of the language programme. It is agreed, however, that more effective training of head teachers who may lack monitoring skills and more consistent monitoring will be priorities in the implementation of the next programme.

While observing a teacher, the monitor collects data on the following Direct Instruction strategies:

1. *Teacher-directed learning.* This is carried out through the correct use of the scripted programme.
2. *Signals and unison responses.* Children are taught attending behaviour through appropriate behavioural management techniques and they respond in unison on signal. These are hand signals given by the teacher to indicate when a response is required from the children. Bennet (1976) describes task time (that is, the time children spend academically engaged) as the most important determinant of pupil development, and this is stressed in all teacher training and monitoring sessions. The programme also emphasizes overtization of learning before covertization. This means that examples of a concept are demonstrated, practised and internalized before children are required to generalize and make use of the concept.

3. *Pacing*. The handicapped child's rate of learning is increased through rapid pacing of the lessons. It is no longer acceptable to allow the slow learner to advance at his own pace; this results in low achievement and limits his potential. The optimum rate of learning is to give at least twenty stimuli per minute, though every demonstration has different pacing requirements which help to maintain interest and prompt attention to significant points. Rapid pacing of lessons ensures that the child becomes a 'faster' learner, and skills are required at a more rapid rate.
4. *Grouping*. Children are grouped according to their current instructional needs. In some instances, this necessitated the regrouping of many classes prior to the introduction of the programme. When our second programme (in arithmetic) was introduced in mid-1984, it was envisaged that children might be in different groups for language and for arithmetic in order to accommodate their current instructional needs in different areas. However, this was found unnecessary.
5. *Feedback*. An integral component of the Direct Instruction model is instant feedback in the form of reinforcement for correct responses or immediate correction of an error using specific correction procedures, e.g. saying 'no', giving the correct answer or repeating the question.

Monitoring teaching involves taking data or teaching sequences in a set period of time. The ideal sequence should illustrate the following pattern:

Stimulus given
↓
Signal
↓
Response
↓
Reinforcement or correction

Analysis of data also has the advantage of providing feedback to the teacher on her skills.

Evaluation

Prior to implementing the programme, a policy was determined in accordance with Ministry of Education regulations that all school children be taught in English. It was argued that many children, particularly those who are handicapped, would be unable to conceptualize in a second language given that in many cases they get little reinforcement at home. This area has been closely monitored and preliminary evaluation indicates that linguistic and cultural interference decrease as proficiency increases. In classes in which there are children with little or no receptive and expressive language, the same programme is used in the indigenous languages with promising results. This suggests that this programme could be successfully implemented in developing countries where finance or professional resources inhibit the importation of programmes such as DISTAR. An adapted version of the Portage home education system introduced in pre-school and reception classes is proving to be an effective foundation for children progressing on to the Direct Instruction programmes. Final evaluation of this programme will be done once all the teachers have completed Parts 1 and 2, and regular monitoring and evaluation are maintained as far as possible.

Instruction is described by Becker, et al. (1975) as a set of procedures for producing a change in behaviour towards a pre-stated objective, and one of the programme's main objectives is to improve classroom teaching. Many of the teachers are unqualified and do not have the time, training or expertise to develop a curriculum. Providing a scripted programme and focusing attention towards the essential skills a teacher needs in areas such as classroom management, presentation techniques, motivational methods, reinforcement and correction procedures appear to have improved the quality of language teaching. Evaluation of teaching practice through taking data illustrates that the use of the Zimcare language programme appears to have reduced the discrepancies between good and bad teachers. All teachers are more effective, although some still require more motivating and monitoring than others.

Motivation is high in both teachers and pupils as such a model allows for constant success and the minimization of errors through the sequencing of material and the reinforcement of correct responses. Through use of the programme, teachers and their children are daily becoming more competent, and this appears to be a key to motivation.

Initial findings indicate problems arising from different pronounciation of some English words causing under-differentiation of vowel sounds. The absence of pronouns in the Zimbabwean indigenous language caused initial difficulty in teaching these concepts.

The use of such a programme eliminates the problems associated with teacher turnover. The new teacher is quickly taught the presentation techniques and merely continues with the next lesson.

The initial success of the Zimcare language programme and its backing by the Ministry of Education indicates the need for scripted programmes in other areas. *Arithmetic One*, already in the schools, covers basic number concepts and problem solving skills. Future programmes will include reading, social skills and vocational training.

The total cost of implementing the Zimcare language programme included: printing and binding eighty programmes and supplying each teacher with a language kit; the initial training of teachers; the time taken for two professional staff to develop the programme and initial travel expenses involved in monitoring each of the schools once a month. Ongoing expenses will include reprinting the programme following final evaluation. This is not a great financial constraint on any developing country determined to minimize the effects of mental retardation on its future citizens and make them more productive members of society. However, the success of the programme would be enhanced if more personnel were involved in its implementation. Research is now suggesting that prolonged effects of retardation are caused overwhelmingly by faulty instruction, not by faulty children. It is therefore important, particularly in a developing Third World country, to harness the knowledge and technology available, however limited resources may be, to improve the quality of instruction given to all children.

7

The rehabilitation, training and employment of disabled persons

*Brother Rudolf van Oudheusden**
(Malawi)

Rehabilitation must be started as early as possible. From the moment it becomes evident that a disease has made a child deaf, blind, paralysed or in any other way affected his mental or physical abilities, everything possible should be done to limit the damage. Parents should be advised that even though this extremely far-reaching ill-fortune has befallen their child, they must not let him alone, nor hide him away, but talk to him, play with him, let him explore his environment and treat him in much the same way as they treat their other children. They should not spoil him or be overprotective; above all, they should let him do whatever he can do for himself.

There are no sophisticated parental counselling services available in the rural areas of a developing country. However, in most cases there are primary health care services and clinics for mothers and children under 5. It is therefore important that all those involved in such services should receive basic instruction during their training on advisory and counselling services in general and on infant disabilities and the emotional effects they may have on parents and guardians in particular.

In many cases in the rural areas of eastern and central Africa, playgroups or infant schools are being established where 3 and 4-year-olds come together under a qualified teacher to play and to learn certain skills. Parents of young handicapped children should be advised to take their children to such playgroups. Integration in playgroups will gradually encourage the young child to indulge in spontaneous play at home and stimulate him to practise and develop his emerging skills independently.

Many parents who originally lost hope have been encouraged by such results and give more and more attention to their disabled child, stimulating him to do things for himself and helping him to overcome his weakness. The expertise of highly qualified psychologists, paediatricians or physiotherapists is not available in the villages, but there are in any village good-natured and willing young girls who, for a small allowance, will assist the playgroup teacher. Such untrained assistants can be of considerable help in integrating the newly arrived handicapped child into the play group by providing the individual attention initially required.

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Going to school

Often the school is seen merely as an institute for academic instruction; but it also has a role to play in the transmission of codes of behaviour and should impart information about the mores and morals that govern the society we live in. For handicapped children, the school has a special role to play in the continuous process of rehabilitation.

Although in many countries primary education is compulsory for all, a great number of handicapped children do not attend school owing to parental ignorance or lack of trained personnel and basic facilities in large areas, or lack of finance. There is no doubt that most handicapped children in the region could attend their local village school and that an integrated programme could provide education to huge numbers of handicapped children who still live in despair and oblivion. The existing programmes have, with their very limited means, produced lawyers, teachers, managers, craftsmen, farmers, etc. So let us not feel discouraged; for any child, going to school means literacy, social contacts and the discovery of the world around them. Going to school for the handicapped child means more: mobility, using crutches, handling a tricycle or finding his way with a long cane. It requires adjustment and adaptation.

No doubt in the forthcoming years educational programmes for the handicapped will improve, facilities will be equipped with more sophisticated material, teachers will be better trained, and more and more handicapped children will find their way into secondary schools and universities. But the question remains: will it be possible for those who leave primary school, secondary school or university to find employment?

The better we educate our handicapped youngsters, the more they develop into socially and emotionally well-adjusted. The more they have learned to be independent and mobile, the greater their frustrations when they find themselves rejects in the labout market, educated for idleness and beggary. This must be prevented at all cost. Employment of the handicapped ought to be a matter of great concern. We must put all our efforts into vocational training, placement and employment programmes if we do not want to reduce the final results of our education of the handicapped to zero.

A charity approach

Vocational training and employment of handicapped people was and still is in many cases considered a matter best left to charitable organizations. For a long time, handicapped people were employed in almshouses or asylums where they produced brushes and mats and were paid a small allowance. Their products often appeared to be of poor quality. They could only be marketed by way of door-to-door sympathy selling, or stockpiled and used as fairground prizes.

Regular competitive industry neither could nor wanted to provide employment for handicapped people who had been trained and were able to work. Employers could not easily be convinced that handicapped people could assure them the same commercial output, the same efficiency and the same product quality as able-bodied employees. They had to be informed that no concessions or favours would be requested and they could hardly believe that terms and conditions of service would be the same as those for non-handicapped workers. When employers agreed to hire suitable handicapped persons, jobs had to be selected that matched the assets and liabilities of each client, did not involve unacceptable risks or hazards and preferably were not too dull or monotonous. Those with a thorough job-directed training were more easily accepted than those who still needed a period of apprenticeship or further on-the-job training.

A different approach altogether

During the Second World War, the United Kingdom needed every single man and woman to help in the war effort. No one was to be excluded from this duty. To make the most effective use of handicapped people, the Ministry of Labour set up a Programme for Training and Industrial Employment of the Disabled. This programme and the recommendations of the committee responsible for it resulted in the Disabled Persons (Employment) Act 1944 which authorized the Secretary of State for Employment to make arrangements for the setting up of non-profit-making public companies for the employment of disabled people. One year later, the Disabled Persons Employment Corporation (now Remploy) was formed.

At present, Remploy operates eighty-five factories and employs over 8,000 disabled workers. The company has a board of six full-time paid directors appointed by the Secretary of State fro Employment. They are experienced in commerce, industry and trade unionism and they operate the company as an economically viable enterprise.

Food for thought

National Industries for the Blind (NIB) in the United States started with endeavours which aimed at ensuring that some of the brooms and mops required by the United States Federal Government should be purchased from workshops for the blind. The Wagner-O'Day Act established a committee that would set up a central non-profit-making agency, National Industries for the Blind, to deal with the distribution of orders for and the sales of products of the respective workshops for the blind. NIB assisted in reorganizing the workshops, ensured increased efficiency and effectiveness and provided highly qualified managerial staff as well as trained personnel for marketing, financing, engineering and rehabilitation; it now monitors activities in over 100 workshops across the country where more than 5,000 blind people do business of over $150 million per year.

Which way to go

From what has been described above, it may be concluded that the establishment of a high-powered national committee/council is an essential requirement for any effective rehabilitation programme. Members must be appointed by the government for a period of two or three years and reappointment should be possible after each period. Such a committee/council needs administrative, financial and technical powers to short-cut red tape and to facilitate an action-oriented approach to the problems of the handicapped. Experience has shown that councils composed of interested volunteers do not have the decision-making power required to control all the agencies involved in work for the handicapped. Councils composed of representatives of all organizations for and of the handicapped do not seem to work effectively either, because such organizations often each have different interests for which their representatives are supposed to stand.

Over the years, almost all the countries in this sub-region have set up their own national councils for the handicapped. Composition and membership being different, there is also a remarkable difference in programme output. A good example is the Malawi Council for the Handicapped, a statutory body established by Act of Parliament in 1972; it acts as an agent of government and advises the government in all matters affecting the welfare, education, training and employment of the handicapped, and in all matters relating to the prevention of any type of handicap. It administers vocational training centres for the handicapped as well as rehabilitation services. The chairman and six members are appointed by the President for two years.

At present, the council has the following: twenty one in head office administration; eight in project administration; six managers; eight rehabilitation/settlement personnel; eight rehabilitation/instruction personnel; and twelve technical staff.

Educational programmes for the handicapped are carried out by the Ministry of Education through the Departments of Education for the Blind and the Deaf at Montfort College. Preventative and curative programmes are carried out by the Ministry of Health through the Prevention of Blindness Committee (subcommittee of the council) and Malawi Against Polio (a voluntary organization registered with the council). Programmes for rehabilitation, vocational training and placement come directly under the council's administration. Some of them will be described below.

Agricultural training and settlement

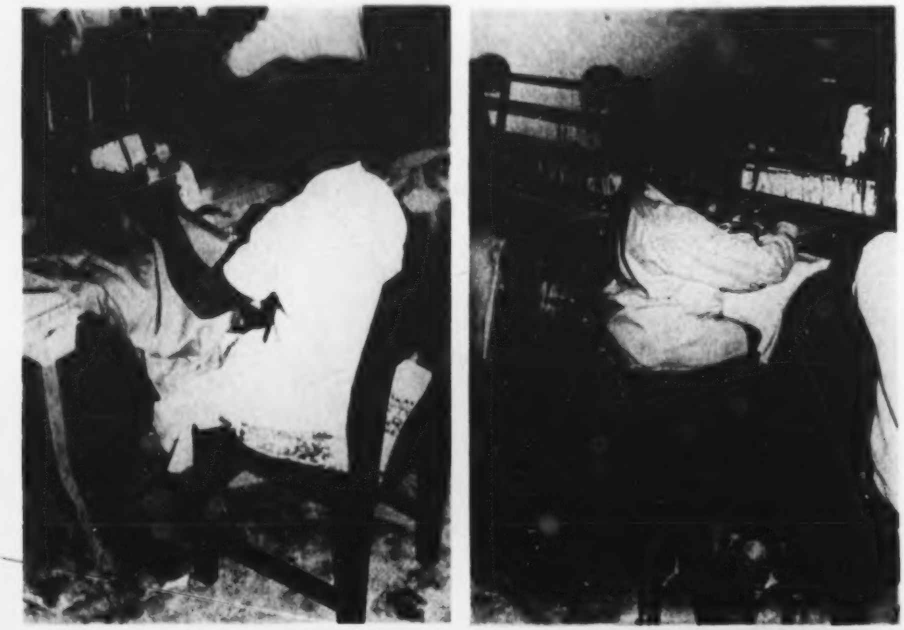
As agriculture is the mainstay of the economy and the majority of the population is engaged in this type of work, employment for the handicapped, including the blind, should be sought in that direction. Teaching simple farming techniques to the blind is not difficult. Traditional implements can be used without modification. Approaches were therefore made to the authorities in charge of the agricultural development programmes and, with the assistance of the project manager of the Chickwawa Cotton Development Project, a pilot scheme was started. Two blind men were taken with their sighted wives into a village near the experimental station and project headquarters. They were given a complete season's training cycle as they had little or no experience in the growing of cotton. While in training, the men were paid the standard labourer's wage. The authorities were satisfied that the blind trainees could indeed cultivate their land successfully, and at the end of the season the first two together with four other blind men and their families were given holdings of ten to twelve acres in the settlement scheme proper. During the first year, subsistence allowances were paid to the blind trainees in order to enable them to buy food and other necessities.

A local man was employed to deal with any day-to-day problem which arose from the settlers' visual handicaps and to act as their liaison with the agricultural personnel. The blind farmers were given access to all the services provided for the sighted, including credit facilities and advice and instructions by field staff. At the end of the season, their results proved to be comparable to those of the sighted settlers, and a further ten blind farmers were allocated holdings for the next season.

After about thirty blind people had been settled under this programme, it was felt that no others should be placed there for the time being as the proportion of blind to sighted would be too high. A similar project was therefore started near Salima in the Central Region Lakeshore Development Project. Crops here included maize and groundnuts as well as cotton. Several other agricultural development projects were used to settle blind farmers.

The growth of a weaving factory

This project began in an unoccupied dormitory of a teacher-training college with £500, one instructor and two 16-year-old blind trainees. A couple of looms and some spinning wheels were made on the spot. The scene was set for a new adventure. The production of hand-woven cotton products was chosen: hand-weaving was quite unknown in Malawi, and cotton, being locally grown, was comparatively cheap.



Handicapped employees working in a weaving factory and a tailoring workshop

The first trainees very quickly mastered the new skill and the production of bedroom and bathroom rugs began. After seeing the pilot project in operation, a visiting Christoffel Blinden Mission representative promised financial and technical assistance for further development. In December 1973, a weaving expert arrived and was given responsibility for developing the programme. He introduced piece work, strict quality control and organized marketing. The number of trainees increased and the dormitory became too small. Plans were made to build a proper factory and construction began in 1975. In February 1976, the then total labour force of twenty moved into the new premises. From then on, things progressed rapidly. The management decided that the factory should dye its own materials, and Malawians were trained as its general manager and production manager. The range of products grew, as did demand: by 1984, the number of employees increased to 125, of whom 90 per cent are handicapped. All employees receive an annual holiday allowance, can join the council's pension and provident fund, receive free morning tea and lunch, and are eligible for sick leave on an authorized scale. They have established their own workers' committee and loan funds. Salaries, wages, transport expenses, purchases of raw material and equipment, and all overhead costs are paid from the factory sales. At present, no subsidy is being received from any source; the capital cost for extension of the factory alone came from outside.

A new venture

This began with an invitation to come for a cup of tea. During our visit the hostess talked about her hobby, the result of which was to be seen in the colourful 'tie and dye' dress she was wearing. Guests were then invited to come and see how it was done. It all seemed very simple. It did not require very expensive equipment and could easily be done by handicapped people. What was required was a building and some initial capital. Accommodation was found in part of an old hospital and the initial capital was provided by the Malawi Council. To begin with, four handicapped people were employed. It was interesting to see how soon people began to notice the new product and its quality. Material began to sell very well indeed. Two big department stores were approached, and both agreed to buy the material as long as quality was guaranteed. At present, some thirty-five handicapped people are employed. Conditions are the same as those in the weaving factory: all expenses incurred by the workshop have to be paid for from sales; no subsidies are received for the project.

Yet another example is a tailoring workshop set up when a retiring businessman donated his premises to the Council for the Handicapped. The necessary machinery was bought with funds received from abroad. At present, fifteen people are employed. The workshop produces mainly school uniforms and industrial clothing.

A chance and a challenge

For many years, plans were under consideration for building a Rural Vocational Rehabilitation and Training Centre, but it could not be started owing to a lack of funds. Then in 1981, in support of the International Year of Disabled Persons, the Government of Malawi presented the construction of such a rehabilitation centre as a priority project for UNDP consideration. After many months of discussion, reconsideration and adjustment, the plans were finally approved and the first trainees were admitted in August 1983. ILO assistance and a training programme for the Malawi staff were included in the programme.

The centre can accommodate 112 trainees at any one time. A wide variety of subjects are offered, including tailoring, woodworking, metalworking, light engineering, craftwork, leatherwork, domestic science, sewing, knitting, child care and business studies. Training programmes are such that they can be adjusted to each individual's needs and abilities.

8

Family and parent support programmes: the community-based approach

Caroline Arnold (Kenya)*

Over the last twenty years, the Kenyan Government has made great strides with the provision of services for disabled children, particularly through the development of its preventative medical, special education, and training and employment programmes. However, the challenge of 'reaching the unreached', of getting services to where they are most needed, is immense.

Public funds are scarce in developing countries. With so many pressing problems, a question often heard is 'Is it reasonable to expect developing countries to divert resources to expensive services for a minority?' While we may answer that, indeed, no country can afford, practically and morally, to ignore a problem affecting ten per cent of its population, in fact the whole question needs rephrasing; so we are ask: 'How can we utilize resources which already exist within the community in order to establish inexpensive but effective rehabilitation services?' This is the question addressed here; the development of family support services is one effective way to meet this challenge.

The family the most important resource

One of the most significant developments in the field of special education and rehabilitation over the past decade has been the recognition of the crucial role of the family. Parents are the child's first and natural teachers, and home the major learning environment. Many programmes world-wide now centre around the active participation of parents. Parents know their child better than any professional ever can and, given the practical help they need, can ensure continuity within the home that short-term intervention programmes cannot. This is low-cost continuous treatment.

The greatest resource in a developing country for helping the disabled lead lives which are as fulfilling and productive as possible is a well-advised and supported family. Important areas of support which apply to all family- and community-based programmes are: counteracting feelings of guilt, stigma and shame; increasing understanding of disability and minimizing its impact on every other aspect of life;

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and teaching practical ways to assist the child's development through training and rehabilitation techniques.

The projects examined below illustrate various ways in which resources already existing within a community can be utilized to develop rehabilitation services. Some use the health services, others education and training services; all rely on the local community's participation and, in particular, the central involvement of the family.

Community participation is the process by which individuals and families assume responsibility for their own and their community's health and welfare, and develop the capacity to contribute to these. The critical factors in this approach are: the changes required in community attitudes and the type of training and motivation given to health workers, teachers, para-professionals and families who will be responsible for most of the implementation.

Action Aid's Disabled Assistance Scheme was established to support the development of family and community-based programmes, and has focused on these two factors in the support it has given to the projects described.

A family and community-based project from Nairobi is discussed first. This project has been found particularly useful recently as a practical training base for field staff involved in intervention projects with the health services and with primary schools in rural areas. The other projects are not designed as replications of the Nairobi project but rather utilize and adapt aspects of the programme as appropriate to their needs and circumstances.

Nairobi Family Support Service (NFSS)

NFSS started as an extension service of a small school for mentally handicapped children aimed at providing support for some of the many families whose children could not be accepted at the school. It aims to meet the needs of disabled children and their families through centring on the active participation of the parents. Run by a management committee comprising parents, local people and professionals, it employs eight full-time staff who have received an average of four years' secondary education, are drawn from the local community and have received a short-term intensive rehabilitation training.

Home programmes

NFSS began in 1981 through weekly visits to families in some of the poorest areas of Nairobi during which home programmes were developed with the parents, first assessing the child and then working out practical ways for parents to assist their child's development. NFSS is at present concerned with some 70 children; and over 100 have been involved.

An initial and vital step may be helping the parents to overcome feelings of stigma and shame. Negative attitudes towards impairment which cause children to be hidden from sight, kept in a dark room, or deprived of normal social contact constitute much graver handicaps than the impairments themselves. In all societies, parents' first reaction to finding out that a child is handicapped is often one of shock and denial. Then, terrified, they rush from doctor to specialist, or, if in a rural area, perhaps from witch doctor to local healer hoping for a miraculous cure. A bitter and frustrated phase often follows. The better the support offered, the sooner the adaptation/orientation phase follows and coping strategies are developed. In NFSS, emphasis is always on the individual child and his development as a member of his family rather than on the disability.

There is a strong focus on practical handling and teaching advice. Day-to-day treatment is developmental, that is, it is concerned with the ways in which the child can be helped to acquire basic physical, social, self-help, communication and cognitive skills. The aim is always to assist the child's development towards independence and the focus is on daily living skills. The parents are closely involved in the process of assessment of strengths and needs and in the selection of short or longer-term teaching goals which are suited to the child. Simple practical ways in which to reach these goals are worked out with the rehabilitation assistants, who will go through a number of activities with the parents on each visit. Staff are trained to assess the small sequential steps of skill development. When working with parents, they use simple toys mostly made by parents and staff from easily obtained materials to help the child progress through the various activities step by step. The parents carry out the programme in between the weekly staff visits.

Playgroups

In response to parental demand and participation, two playgroups have been established. One takes place twice a week in a community health and craft centre, the other, weekly, in a community school classroom situated next to a health centre. Both cater for about twenty children. Staff members are supported by regular visits from an occupational therapist or physiotherapist from the local hospital and the community nurses from the health centre.

Parental involvement and local volunteer support are strong. This means a wide variety of activities are available catering for the many different types and levels of disability. Activities include sensory motor training, mathematics, arts and crafts, language work, music, social training, cooking, gardening etc.

Those children who may be able to attend a local primary school or gain a place in a special school practise the skills they will need. All are involved in activities which will help them take an active part in daily life. At each playgroup session, a nutritious meal is prepared with the help of some of the parents and children, and the mothers receive nutrition advice. This forms an important part of the programme, for many of the children have been malnourished at one time or another. Protein-energy malnutrition affects 100 million children under 6 years of age in developing countries and can permanently stunt mental and physical growth.

Prevention

The Health and Craft Centre and the Health Centre are used by many groups. The nutrition, immunization and health education programme is of central importance to the long-term success of any project such as NFSS, which is concerned with the prevention of disabilities as well as the rehabilitation of those already affected. Prevention costs much less both in financial and human terms. It is true that most of the physical and mental impairments suffered by children in developing countries can be prevented, since they are due mainly to malnutrition of the child (and often the mother, especially during pregnancy) problems during childbirth, preventable diseases and accidents. Because most impairments that occur do not have to develop into serious disabilities, a secondary level of prevention lies in the detection and treatment of impairments when they appear. Staff receive training in simple detection and many of the children with whom they work are very young; the importance of reaching young children cannot be overestimated.

Low-cost aids

For disabled children, aids which enable a child to sit, or move around or strengthen muscles can make the difference between helplessness and independence. Two NFSS staff have attended low-cost aids workshops which provides training in making appropriate aids locally rather than relying on extremely expensive and often fragile imported aids. At these ten-day workshops, held in different parts of Kenya, participants are trained to design and make simple aids for children with physical and multiple handicaps using local materials and basic hand tools. The aids include sitting, standing and walking aids as well as basic physiotherapy aids. A low-cost aids workshop to train parents was held in 1983. One staff member is now employed specifically to construct low-cost aids and make toys and educational equipment for the programme. Aids are given to the children to use at home so that, for instance, they can sit supported for some time during the day rather than lying down all the time. Aids are also made for use at the playgroup.

Toys from scrap material

Several toy-making workshops have been held, both in conjunction with a special school and with parents. A wide range of toys using scrap materials have been developed. A booklet describing the construction and function of the range of toys is now being produced.

Childhood disability survey

In 1983, a survey was carried out in another part of Kibera, the large low-cost housing suburb where one of the play-groups is based, with NFSS staff acting as supervisors. The Childhood Disability Survey in Kenya is part of the International Pilot Study of Severe Childhood Disabilities, co-ordinated by the Servgiesky Centre at Columbia University, United States. The pilot study involves a door-to-door survey carried out in a community where there are about 1,000 3- to 9-year-old children.

The objectives of the study are to determine the prevalence rates of severe disabilities and their causes, to develop a screening questionnaire suitable for use by community workers in developing countries and to develop rehabilitation programmes within the community.

The results are being published following computer analysis, but generally the study may be said to have been useful in stimulating interest within the area, particularly because children identified by the survey have been integrated to NFSS.

Some case histories

Edward has cerebral palsy. He is just 3 years old. He could not sit up when we saw him a year ago. His mother regarded him as a hopeless case and believed an impaired child to be something of a curse. Now she works with him every day doing the exercises the rehabilitation assistants have taught her to help strengthen his muscles and release spasms. He is now walking between the parallel bars that have been constructed for him beside his house. A simple aid made from wood and tyre inner tube will help correct the position of his feet. He uses this when sitting playing with the brightly coloured toys the rehabilitation assistant has helped his mother to make from old tins and bottle tops. Her shame and guilt have been replaced by justifiable pride in her son's progress.

Similarly pleased with progress is Mohammed's grandmother. Mohammed, aged 9, lives with his grandparents who make a living selling water and tailoring. Mohammed is microcephalic, visually impaired and severely developmentally delayed. His grandparents were fond of him but felt he was basically unable to do much, though they very much needed all the many children and grandchildren to be contributing members of the household. The NFSS worker started off improving Mohammed's hand-eye co-ordination by playing simple catch games with a ball. As he improved, games requiring finer discrimination were introduced, such as putting stones into a tin. Now Mohammed is able to make a really positive contribution to the family by collecting the water money from customers at the tap and putting it safely into a tin.

Expansion into rural areas

In 1982, broad surveys through primary schools, hospitals and health centres were carried out by Action Aid in three rural areas of Kenya (Isiolo, Marsabit and Kibwezi) to determine the extent of disability both within and around the schools, local resources in the community and interest in the development of services.

Projects through health services

Following surveys and discussions with the Ministry of Health, it was decided to assist with the development of small-scale family- and community-based rehabilitation services using the health extension workers (that is, family field educators, nutritionists and community health workers), as well as Action Aid fieldworkers with back-up from occupational or physiotherapists where available.

In many areas, the health services may be the only available resource through which to establish basic rehabilitation services. There are, in any case, many advantages to utilizing health service extension workers since they are: (a) already working closely with families in their homes; (b) already working with young children and so can be particularly effective in the area of prevention and early intervention (especially nutrition workers); (c) an important and highly visible part of their communities, well-placed to identify children in need of services and influential with regard to community attitudes; and (d) an already existing resource requiring no additional expenditure.

A one-week initial training was developed for use with health extension workers to give them confidence and practical abilities enabling them to implement immediately the inclusion of children with disabilities into their extension work, and to develop effective home programmes with the parents.

The training is designed as a practical workshop. It utilizes role play, small group work and problem-solving techniques and introduces awareness and attitudes, the aims of rehabilitation, basic child development, observation and assessment, goals and objectives, home programmes and records, and prevention.

Following training conducted by Action Aid in conjunction with the Ministry of Health in Marsabit, Isiolo and later (in conjunction with UNICEF) in Kibwezi, family support programmes have been established in all three places. Continuing short training workshops and regular back-up visits from experienced professionals have played an important part in the success of the programme.

Isiolo and Marsabit hospitals

Due to the transport problem common to most developing countries, these programmes operate in the areas within easy walking distances of these small and isolated towns (that is, a radius of about 6 kilometres) but they do also provide services for clients up to 35 kilometres away. *Home programmes* operate in both places along similar lines to those discussed in the NFSS description. A *weekly playgroup* set up by the extension workers at Isiolo also provides a meeting place for mothers and children, some of whom travel considerable distances to attend each week.

As a result of these programmes, many children are now better integrated within their families and some have been accepted in the local primary schools where they continue to receive back-up support from the extension workers.

Prevention and community education continues to be a major emphasis of the projects. Immunization and nutrition clinics are combined with the home visit programme.

Kibwezi Health Centre

This programme utilizes a community rehabilitation worker, community health workers and Action Aid field workers. It is an example of the effectiveness one community rehabilitation worker can have when working with a group of other extension workers who have other reponsibilities in addition to rehabilitation.

The Childhood Disability Survey described earlier was also carried out in a sub-location near Kibwezi. Some 7 to 8 per cent of the children surveyed were identified as disabled. However, the survey also indicated large numbers of 'borderline' children, cases in which disability can probably be prevented provided appropriate action is taken. These children, as well as those identified as already disabled, are included in the intervention services.

In addition to a very effective home programme system which has transformed life for many families, there has also been a widespread programme of community education.

Barazas

The community workers have organized with their sub-chiefs a variety of *barazas* (public meetings) in their villages. They have talked about the programme, particularly concentrating on increasing awareness and positive attitudes and on identifying children with disabilities who need help. Some low-cost aids have been been presented at *barazas*.

Parents' workshops

These are held every two months; the parents come from far away and spend the night previous to the workshop in a hotel, thereby having a chance to meet one another.

The one-day workshops are run by the community workers, usually include a visiting district specialist such as an occupational or physiotherapist, and cover such areas as self-help skills, play with a handicapped child, basic physiotherapy for the home and language development.

Low-cost aids

Following the training of various local people (health workers, carpentry instructors, field workers, etc.), a small workshop has been set up at the community rehabilitation worker's house where three of the community workers spend one or two days a week constructing low-cost aids. Over twenty-five items were completed and distributed over a two-month period, and many repaired. Previously, people waited years if they needed an aid.

At one of the follow-up seminars to the low-cost aids workshops, held at Kibwezi Health Centre, village polytechnic instructors, community workers and rehabilitation staff formed themselves into teams so as to increase their effectiveness in working with their local communities.

Association for the Physically Disabled of Kenya

The community rehabilitation worker has established an excellent relationship with the mobile clinic of the Association for the Physically Disabled of Kenya (APDK) which he visits monthly. He has encouraged many parents to take their children for help. He refers children for handling advice, so he can work more effectively with the parents, and for calipers, corrective surgery, shoes, etc. The clinic staff in turn requests him to make items (crutches, and sitting and standing aids) for clients.

Some notes on children who have been provided with aids

Margaret lost the use of her legs after contracting poliomyelitis. She used to pull herself around in the dust of her family's compound all day. Now she is going to school with other children. All it took was for the rehabilitation worker to construct a simply trolley on which she is pulled by her sister to the school two kilometres away each day.

Mwikali pulled herself around on her stomach. The rehabilitation worker constructed a simple walking aid with sturdy wooden wheels. Mwikali got the idea of walking very quickly, and her parents were so encouraged they constructed parallel bars from sisal poles with the community health worker's assistance. From here the parents, who had previously regarded her as useless, took her to the APDK mobile clinic which visits Kibwezi twenty kilometres away. She was provided with calipers and now, with the help of these and a pair of bamboo crutches made by the community rehabilitation worker and her brother, she is walking and has started school this term.

Projects through primary schools

Child-to-Child is an international programme designed to teach and encourage older children (especially schoolchildren) to concern themselves with the health and general development of their younger brothers and sisters and neighbours. It includes simple preventative and curative activites as well as games and role-playing. These are demonstrated and taught in school for the children to pass on within the family and community. As well as piloting a programme in rural schools using the existing materials, new Child-to-Child activity sheets were developed at Action Aid which focus on awareness and attitudes towards disabilities plus simple intervention. A series on prevention is being produced.

Teachers and health workers have been taught how to run this programme through demonstration, but the activity sheets are self-explanatory and can be used without any prior training. The programme was successfully piloted in twenty schools around Kibwezi and its use is now being extended. The activity sheets are available in English and in the vernacular for two areas. The improved attitudes in the schools were demonstrated by, for example, children with disabilities being accepted into schools, other children helping to construct low-cost aids for disabled children, children assisting with transporting disabled children to schools, children visiting disabled children near them, schools compiling lists of disabled and 'at risk' children in the community, and schools arranging screenings so that disabled children could be assessed by rehabilitation professionals and health workers and incorporated into the programme.

Agriculture projects

Kenya is a predominantly agricultural country and one of the most effective ways for disabled persons to contribute to the family is through participating in the family's farming activities. Several schools for the mentally handicapped have established successful agriculture projects with support from Action Aid[1] A pilot project has recently been established to help integrate disabled children into the agriculture (4K) clubs attached to regular primary schools and to assist them, as it does all club members, to establish home projects. Action Aid supports 300 4K clubs in Kenya and these are a valuable resource to draw on. One agriculture instructor with additional rehabilitation experience is required in each area to co-ordinate the work with teachers and agriculture instructors.

Validity and replicability

The projects described here provide a few examples of how many forms of assistance can be rendered through the appropriate application of existing resources. A modest enrichment of training programmes for basic health, welfare, educational and vocational services can expand their coverage to include the disabled.

An important factor in all this is cost. Family and community-based support schemes cut costs enormously. One of their great strengths is that they do not require huge additional inputs from governments already hard pressed, but rather a creative redirection of existing resources to develop and expand rehabilitation services.

However, this great strength is dependent on the political will of the governments involved. To be successful in more than a few pilot projects, this approach requires a commitment to make rehabilitation professionals available to supervise, encourage and advise the community rehabilitation and health extension workers, the teachers and the families. In Kenya, the Ministry of Health is currently working with Action Aid and UNICEF to include a disability component in the training of health extension workers. Physiotherapists and occupational therapists require additional training to enable them to co-ordinate work at district level. All community-based rehabilitation schemes must be set in a context of community awareness and mobilization. The importance of health education programmes such as Child-to-Child should not be underestimated: they form part of this much wider process of change.

Family support programmes are proving extremely effective, giving the child a chance to develop his potential and find a useful place in his own community.

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[1] Including the school described on pages 95 et seq.

9

Integration of handicapped children in pre-school and school education

J. Cyril Dalais (Mauritius)*

Although Mauritius is one of the wealthier countries in the sub-region, there are still considerable gaps in its health, education, vocational training and family support services for the handicapped children in its population of 1 million people. Interested Mauritians, with considerable overseas assistance, have been working over the past fifteen years or more to establish what are now a group of related programmes serving some of these disadvantaged young people and their parents.

In 1968, WHO's Scientific Group on Neurophysiological and Behavioural Research in Psychiatry made recommendations to the effect that 'a collaborative, longitudinal, interdisciplinary research programme should be initiated in several contrasting cultural settings'. It was also suggested at the time that 'the inclusion of suitable centres in the developing countries in collaborative research programmes would provide an important contribution to general knowledge as well as to local facilities' (WHO, 1968). Mauritius was selected as suitable for this programme.

Two major considerations guided the initial plans of the Mauritian research programme. While maintaining the goal of cross-cultural research comparability, the research plans should make use of information gathered from on-going studies and research programmes in Europe and the United States so as to allow the possibility of the generation of new knowledge. The research plan should reflect awareness of the cultural diversity of the people of Mauritius. In the light of this awareness, culture-free methods of investigation would be used to look at the child's physical development, psychophysiology and family relationship , his pattern of relationships with other children in given situations and his potential for learning.

The Joint Child Health and Education Project (JCHEP) began in 1972 with the screening of a large population of 3-year-old children in a given location on the island (Venables, 1982). With support from funding agencies in the United Kingdom and the United States and some support from the WHO, 1,800 children (a random sample representative of the child population of Mauritius) were seen at a research centre over the period 1972/73 with their parents; data on all aspects of their development were collected and forwarded to the United Kingdom where a preliminary analysis was carried out. Of these 1,800 children, a sub-sample of 200 were selected for more detailed study. With additional financial support, this time from the Danish Government, two pre-school units were started; 100 children were offered a pre-school education programme while another 100 remained in the community as a control group.

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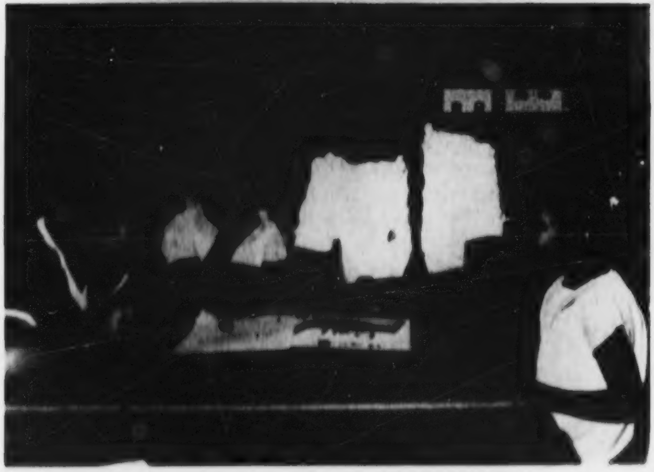
While this research programme was initially designed to look at children 'at risk' for disorders related to mental illnesses, it generated useful information on the physical, emotional, social and cognitive development of young Mauritian children at a very early stage. The research team which helped with the screening of the original sample developed a number of scales and observation schedules, and adapted a number of tests and research tools which were subsequently used to gather more information on the children's progress at pre-school units, and later at primary and secondary schools as the children progressed through the Mauritian school system.

When the project started, pre-school education already existed in Mauritius. It was then more in the form of pre-primary education offered by untrained, unqualified people who drilled young children in reading, writing and counting prior to their entering ordinary primary school at age 5. The Danish-sponsored pre-school units established in 1973 brought a fresh conception of young children's education, developing a more child-centred, dynamic approach. Toys, equipment and furniture designed locally were widely used in the units, supplemented by items from abroad. Thus two units set up for the systematic observation of 100 children as part of a research programme became two pilot units in pre-school education.

Table 16. Estimated prevalence of disabilities in Mauritius

			Estimated number of children in need			
Disability		Percentage	Pre-primary	Primary	Secondary	Total
Movement problems		1.0	648	1 372	1 572	3 596
Specific learning disabilities		2.5	1 621	3 440	3 929	8 990
Speech/language deficits		3.6	2 334	4 956	5 658	12 948
Emotional problems		1.0	648	1 376	1 572	3 596
Hearing impairments		0.6	389	826	942	2 157
(Hard of hearing	0.5)					
(Deaf	0.1)					
Visual impairments		0.3	195	413	471	1 079
(Partially sighted	0.25)					
(Blind	0.05)					
Mental handicap		3.0	1 945	4 129	4 716	10 790
(Mild	2.5)					
(Moderate	0.4)					
(Severe	0.1)					
Multiple impairments		0.2	130	275	314	719
Total		12.2	7 910	16 791	19 714	43 875

Estimated number of teachers needed at a ratio of 1:25 = 1,755



By 1976, when the first phase of observation was completed, much was happening in the field of pre-school education. Much of it focused on the normal pre-school child and little was being done for the child with very special needs. While screening the original cohort of children a few years earlier, the staff at the research centre had come across children who presented some disabilities: sensory deficits, mental handicaps, motor and speech difficulties (see Table 16).

In early 1977, demands for more pre-school units and more trained educators were increasing. The newly elected government showed interest in the results of our observations on pre-school children, and the Ministry of Education agreed to become involved by supporting the programme financially, supplementing funds obtained from external sources on the understanding that more teachers could be trained as part of the programme. It was decided to transform the two units into a training base for more pre-school educators and at the same time include a number of disabled young children within the units, respecting the prevalence rate of handicaps. Over the two years of their training, the pre-school educators had first-hand experience with all categories of children. General parental consent for this programme was obtained, the Ministry of Education's approval sought, and Danish assistance obtained in the form of two trainers who had had previous experience with the integrated approach. For two years, twenty trainees, a hundred children (fifteen of whom were disabled) and two trainers participated actively in this programme. Parents of both normal and handicapped children were also involved, and were appreciative of the progress their children were making, so much so that, when the training was completed, the parents and teachers decided that the two-year experiment should become a permanent feature of the pre-school education programme. Thus the Clairfonds Project was born. Figure 1 illustrates the organic links between JCHEP, the Clairfonds Project and some of the programmes which they have since established.

The Clairfonds Project

Proposals were submitted to the Ministry of Education by JCHEP, the staff and parents. These were evaluated by officials and in 1979, the International Year of the Child, it was agreed that a unit would operate on the campus of a primary school located at Clairfonds, a pleasant suburban area. The head teacher and staff of the local primary school were invited to collaborate in the project which would offer a broad-based stimulation programme to normal and disabled pre-school children. Three rooms were allocated, alterations were made to accommodate children with physical disabilities, a toilet and a shower unit were installed and a small kitchenette for a food programme was added.

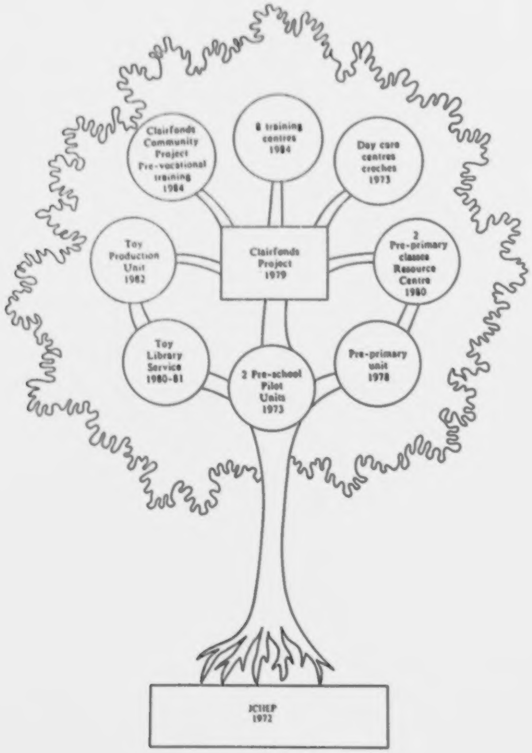
Two newly trained teachers and one auxiliary helper were invited to launch the scheme and a committee of parents agreed to contribute to the whole scheme by bearing part of the expenses and administering the budget. Financial assistance for the alterations came from private sources abroad.

In 1984, thirty children attended this unit, ten of whom presented some apparent marked handicaps: cerebral palsy, Down's syndrome, psychotic behaviour, or non-communication. Others were quite normal, or at least they behaved in a normal, acceptable way. Their ages ranged from 3 to 7. Four were a little older and belonged to the first batch of children recruited at 1979. Disabled, they used the unit as a base while following lessons in the ordinary primary school.

The children come from the locality and find their own way to the unit. A few who are disabled come from farther away and transport arrangements are made to get them to Clairfonds. On an average, they live within a six-kilometre radius of the school. Most come from families of economically poor agricultural workers, a few from middle-class families.

While the two teachers and the auxiliary helper look after the day-to-day running of the school, the head teacher of the primary school has the overall responsibility. The school inspector visits the unit regularly and the parents' committee contributes towards administration, fund raising activities and the organization of various festivities and outings. The Clairfonds unit is also part of a network of special units where teacher trainees come for practical placements and have an opportunity of meeting children with special needs.

Figure 1


Clairfonds Community Project Pre-vocational training 1984
8 training centres 1984
Day care centres creches 1973
Toy Production Unit 1982
Clairfonds Project 1979
2 Pre-primary classes Resource Centre 1980
Toy Library Service 1980-81
2 Pre-school Pilot Units 1973
Pre-primary unit 1978
JCHEP 1972

Teachers, teaching and administration

To help launch the project, we relied on one teacher who trained in Mauritius and is the holder of a Teacher's Certificate in Pre-Primary Education from the Mauritius Institute of Education. This two-year course includes 200 hours allocated to special education. The teacher in charge of the Clairfonds unit has had additional training in special education: six months in the United Kingdom, and a practical placement organized by the Toy Libraries Association of Great Britain. She is assisted by another person who has acquired her training on the job while attending a one-year course (theoretical and practical) on child development run by the Ministry of Education Pre-Primary Unit as part of a general training programme for educators of young children.

The daily teaching programme offered in such a unit aims at promoting the overall development of the children. A preliminary assessment of each child is carried out and its areas of strengths and weaknesses recorded. The individual record sheet provides adequate information to help the teacher and her assistant organize activities in such a way that each child can benefit at his own level. Regular discussions between teachers and parents ensure that the child is making progress.

Group activities are offered at certain times of the day, but there are also moments in the daily programme when the child can be seen individually. Activities may be organized on specific themes and children are given a chance to express themselves through free play, using activity corners specially organized in the unit. For those who are reaching the end of their placement, or who are ready for more formal learning, a gradual introduction to more directed learning exercises is offered. Outdoor play is an important feature of the unit's activities and the young children mix regularly with primary school children on the climbing frames, swings or seesaw.

Outdoor play, meal-times and early morning activities are certainly three of the moments when one can observe maximum interaction between children: older ones help the younger ones, more able children help the disabled. This healthy co-operation works both ways.

The initial financial investment required to start this project was not too high. The building belongs to the Ministry of Education which maintains it, and the unit is providing some of the basic teaching materials. Parents are invited to contribute towards the food programme and are charged 30 Mauritian rupees (approximately $2) per month to pay for the assistant teacher, the auxiliary and the supply of some basic educational materials. The teacher in charge of the unit is paid from a government grant.

This co-sharing of responsibilities between parents and the government has been extended to a larger number of units in Mauritius. While approving the principle of integration, the Ministry of Education has not been in a position to develop this scheme further owing to lack of trained staff, adequate resource materials and basic facilities for the disabled. It is to be noted however that some children with impaired sight or hearing are now attending a number of pre-selected schools at both primary and secondary level. It is hoped that the Clairfonds Project will enable the physically handicapped and the slow learner to benefit from attendance at primary schools.

The scheme has not been fully evaluated so far, except for the progress of individual children and their future educational placement at case conferences organized and held by the teacher in charge. A more thorough evaluation of the way the unit functions, its educational programme and its impact on children (both normal and handicapped) was planned for 1985, carried out by JCHEP staff using time sampling procedures, observation schedules and basic tests they have developed over the years.

A few of the older children (two with cerebral palsy and one with Down's syndrome) started attending normal lessons at primary school last year, and for two of them progress is quite satisfactory. Children with impaired hearing will find placement at a special class which operates on the same campus. The normal pre-schoolers are also assured of a place at ordinary school, but special facilities will have to be obtained for some of the disabled group. Only 25 per cent of the disabled will be able to cope in a normal school environment; the rest will require some degree of specialized help. The parents have decided to work out a scheme which will develop over a six-to-eight-year period. With the help and support of staff at the unit and at the primary school, and the endorsement of the Ministry of Education, they now plan what will be known as the Clairfonds Community Project. Their main aim is to start a programme within the primary school which will provide practical training primary -school children in general, adapted to serve the needs of the disabled children.

The parents have asked that for the first two years they themselves should be taught certain skills to help their children eventually with small-scale gardening, farming and handicraft. They would like then to proceed to a second phase as the children grow older, and offer pre-vocational training that would enable adolescents to be initiated to cookery, pastry-making, and wood- and metal-work, leading to apprenticeship courses for future employment.

Parents have worked at the proposals, now submitted to funding agencies. The Ministry of Education and the Ministry of Youth and Sports are very interested.

Extension services to support pre-school educators and their pupils

A resource centre for pre-school education was established in 1981 with support from the Save the Children Fund, JCHEP, UNICEF and the French Government. It offers a reference book library, a toy library, a traffic playground and centre, as well as audio-visual equipment and resource personnel. The four trained and qualified pre-school educators who are currently running these extension services also visit twelve pre-school pilot units lending support to the staff, children and parents. They are extending these support visits to units which are run privately but are officially registered with the Ministry of Education Pre-Primary Unit. During their visit, they provide advice, identify needs and pay particular interest to those children who have special needs. Three of the pilot units have been integrating a number of disabled children for the past three years, and so have some private units. But, as one would expect, these units are accepting some of the less seriously handicapped children with a mild physical disability (cerebral palsy) or hearing impairment, or with Down's syndrome.

The JCHEP Research Group has also extended its services to pre-school units. It is offering a monitoring and evaluation service to support further the work carried out by members of the resource centre. Three times a year two research assistants and one social worker visit the children attending the twelve pilot units, taking a closer look at their growth, and following up on observations made earlier by other visitors. It was hoped that in 1985 their work would gradually extend beyond the pilot units to include sixty or so of the units run privately. The research personnel do the follow-up, make sure that the children are seen regularly and obtain data which are vital for the evaluation exercises that need to be conducted regularly.

The diagnostic unit

This first attempt at helping young handicapped children to learn alongside normal children at Clairfonds was soon to be followed by another small programme which aims at identifying disabled children at a much earlier age.

The diagnostic unit came into existence in 1982 to meet the need for the early identification and intervention programmes for very young children. It is vital that a child's special needs should be discussed and assessed at a very early stage if he is to benefit from a suitable educational programme.

According to the Warnock Report (1978): 'For all children with physical or sensory disabilities, or showing signs of learning or behavioural difficulties, early education is the key to their individual development and the prevention or mitigation of later disturbances.'

The diagnostic unit's main objectives are to contribute to early idenfitication of children with special needs, to assess needs and provide stimulation programmes, and to advise parents and work with them to help children overcome their handicaps.

The unit is located in a government-owned building, a house which has been adapted and lends itself well to this purpose, with open space for outdoor play, a garden and room to set up a chicken pen and rabbit hutch outside. It is in a small residential town and recruits children within a five-kilometre radius. The Pre-

School Education Resource Centre is based here also, and works closely with the unit.

Twenty-six children are registered with the diagnostic unit and attend family regularly. Most are of pre-school age and have been referred by doctors or nurses. The pre-school children attending at the moment present various handicaps. They include children with sensory deficits (mostly hearing impaired), slow learners (children with Down's syndrome), non-communicators (autistic), hyperactive (brain damaged) and physically handicapped (cerebral palsy). A small number of normal children (younger siblings, children living in the vicinity of the unit or children of staff) also attend.

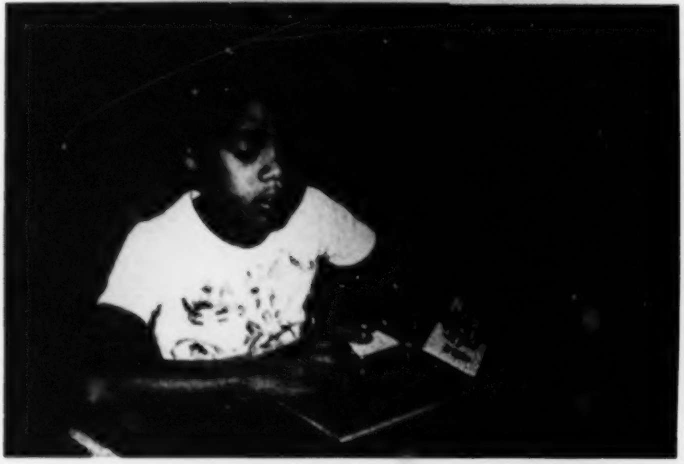
Two trained teachers, one assistant and one cook/cleaner work at the diagnostic unit. One of the teachers has had nursery school training and the other has specialist knowledge of hearing impaired children. The assistant is a day-care assistant still being trained.

At first, the Ministry of Health supported the diagnostic unit with a medical officer with training in child psychiatry visiting once a month, and a speech therapist and a physiotherapist providing advice, support and exercises to children and parents regularly on a fortnightly basis. These supportive services had to be reviewed in 1983 because of staff shortages at Ministry level. In December 1983 the Principal Medical Officer at the Ministry agreed to support the diagnostic unit from the nearest general hospital with regular access to the children's outpatients department for medical surveillance and with visits from one physiotherapist to help cerebral palsied children. Parents are also very actively involved. They are encouraged to attend on a full- or part-time basis to help work with their children. Their active participation in the unit's work guarantees that the work goes on in the home as well, for the benefit of the child and the family.

The Save the Children Fund (United Kingdom) has for the past two years supported this programme by meeting the payment of staff and part of the cost of the food programme. Parents contribute a certain amount: those who are too poor are invited to help in some way with maintenance, general clearing, preparations for celebrating festivals, or other activities. The actual basic cost of running the unit for twenty children comes to $13 per month per child. This does not include medical or paramedical support from the hospital, but it covers the pedagogical, nutritional and stimulation programmes.

Administratively, the diagnostic unit has a teacher in charge who is responsible to the Director of JCHEP. She co-ordinates all activities with the teaching staff and parents on a day-to-day basis. A subcommittee established by the Save the Children Fund (Mauritius) monitors the general running of the unit and evaluates its activities periodically. It includes a medical practioner, an educationist from the Mauritius Institute of Education, the teacher in charge and one parents' representative. The subcommittee makes suggestions and recommendations as to the general orientation of the diagnostic unit. No remedial services exist in Mauritius at the moment, but a newly formed school psychology unit has just started to look at children with special needs.

There are far more children with special needs in the area where the unit is located than it can accommodate. These children are usually at home. With the support and collaboration of a toy library service which JCHEP sponsored in 1981, one teacher from the unit visits families at home on a regular basis and provides advice, support, toys and equipment to parents and their handicapped children. These children and their parents attend the diagnostic unit occasionally in the course of the term for certain play activities, medical follow-ups, specific training sessions or to participate in cultural or religious festivals and celebrations. The toy library service vehicle and the JCHEP vans usually help with their transport arrangements.



The unit is open during weekdays only, from 8.30 to 3 p.m. It offers a number of activities daily for all the children, but tries to offer specialized help to individual children depending upon their special needs. The impaired hearing child will have specialized sessions with the teacher helping him to pay attention, lip read and sign; and the physically disabled child will have periods where he will be encouraged to co-ordinate gross motor movements, work on parallel bars or feel his balance on an auto-stimulator. The slow learners will be given special attention with play and language stimulation, while the hyperactive child will be conditioned to better control of movements with positive reinforcement.

This unit has certainly contributed to early identification, and it is becoming apparent that a number of pre-school children who have been through its early stimulation programme will go back to normal school. Some 20 to 30 per cent will be accommodated in an ordinary primary school; the majority will need specialized help. Many will seek placement at Clairfonds Integrated Project and use of the special facilities offered by the ordinary primary school; eventually they will make full use of the pre-vocational training offered by the Clairfonds Community Project mentioned earlier. The hearing-impaired children will eventually attend the school for the deaf.

Four major factors have contributed to the success of these projects: willingness on the part of the government and relevant ministries to go ahead with the various schemes; the availability of trained personnel and of both material and financial resources (see appendix to this chapter); the continuous presence and support from the research (national and international) of JCHEP; and the careful and reasonable planning defining short-term and medium-term objectives, and regular and thorough evaluation and review of the programmes offered.

Nothing, however, would have come out of the first phase of the project if parents and members of the community had not fully and actively collaborated to its success.

10 Looking ahead

This chapter rests essentially on reports from governments and non-government organizations, on comments from many people interested in services for disabled people and on the project staff's own observations. However, its predictions and assessments are essentially the author's.

The study records the wide variations in the range, availability and quality of the health, family support, educational and vocational training programmes which were available in 1981-83, and the uneven distribution of these services between countries, major cities, larger towns and rural areas (it must be remembered that only about 20 per cent of the 110 million people in the sub-region live in urban areas). The project inevitably focused on the common elements in all these services, and on some of their high points and low points. The comments in this chapter reflect that approach: they are mostly general and are not necessarily relevant to a particular country or programme unless specifically mentioned.

A third point is the sheer magnitude of the task of extending and improving the existing special education and related services to any significant extent. Tables 5 and 6 showed the generally very large gaps between the reported full- and part-time special education enrolments in 1981-83 and a fairly conservative estimate of the provision then justified. Using the 10 per cent interim target, they also showed the very marked degree to which those children needing special education were deprived of an appropriate school placement when compared with other children. This was true even for countries which reported that a high proportion of their children of school age were enrolled for first-level education.

The future outlook was even more depressing because the existing high birthrates in most of the associated countries meant that the number of likely clients for special education was increasing much faster than extra special education places were being provided. Consequently, an individual child's chances of obtaining special education were actually dropping as each year passed. This situation would continue until declining population growth rates, improved child health care and expanded special education services reversed the trend, unlikely during this century. Table 16 does not differentiate between full and part-time special education placements and it is clearly only indicative.

However, when all the justified reservations have been made, the forecast must be that unless there is some radical change in the economic fortunes and population growth of the associated countries, and in the priority they give to funding special education, only Seychelles could be realistically expected to reach its target for 2000 showed it set out to do so. The outlook would be just as gloomy if these targets were greatly reduced.

Table 17 illustrates very clearly the cumulative effect of higher birth rates. All the information available suggests that the funds likely to be available for special education administration and development over the next decade or so would be no greater in real terms per child of school age than those provided in 1981-83, and could be less in some countries.

The International Bank for Reconstruction and Development (IBRD/World Bank) and other reputable agencies predict no significant improvement in the economics of the sub-Saharan countries and further, that important sectors with a high public profile such as health, transport, agriculture and industry will generate strong and continuing demands for development funding even without any extra pressure from population growth. Within the education sector itself, even in those countries where public attitudes towards disabled people have become clearly more positive any really substantial proposals to extend special education services will face strong competition from plans to extend and strengthen all levels of the general education services. Under these circumstances, governments which have adhered to the various United Nations declarations on the rights of disabled persons as valid expressions of their intentions seem likely to continue their existing policy which says, in effect, 'Yes but not yet' to requests for clearly signficant expenditure on services for this substantial minority of their people.

Many countries that now have the best-funded special education services were themselves slow to recognize the special needs of their handicapped children and adults, and still slower to meet these needs as fully as they could have done, given their greater resources and much better developed social services of sixty years ago or more compared with those now available in the sub-region.

While miracles are always possible, the only realistic base for wise planning for the next ten to fifteen years is to assume that funding will remain at or about its present level, in real terms, and that with good fortune and carefully focused external help it may increase modestly. This assumption should help to ensure that the chapter will be as relevant as possible for the social and economic circumstances in which decisions will actually be made.

This short look ahead focuses on the strategies that might give the best return by way of the services actually provided to those children and adults who have special educational needs, a topic directly relevant for every country, rich or poor. It will consider three related but perhaps more basic challenges which came into focus during the project's unique study across the whole sub-region: to use the resources which are already available for special education services to their best effect, essentially an administrative task; to use the funds available to extend or improve these services in the best way, a question of priorities within the special education domain; and to establish the best working links, in terms of serving their common clientele, between special education services and all the other services which assist disabled persons and their families, essentially a question of their complementary roles in national rehabilitation programmes.

The administration of special education services

There is a very strong case for arguing that the key action which each of the associated countries can take to ensure that all its available special education resources are used to their best effect is to establish, as a top priority, an adequate framework for their administration as a discrete but integral part of its national education programme. Table 9 noted the improvements made over that period at national level, but even when these are taken into account, no country

Table 17. Estimated additional special education places (full or part-time) needed to serve the interim target of 10 per cent of school age children by the year 2000

Country	I Regional rating by availability of special education 1981-83[1]	II Special education places available in 1981-83[2] (000s)	III required by 2000 to meet 10 per cent interim target[3] (000s)	IV Additional places needed by 2000 to reach target[4] (000s)	V Extra places needed annually 1983-2000 to reach target[5] (=1)	VI Ratio of target for 2000 to places available
Seychelles	1	0.340	2.72	2.38	0.140	8.1
Zambia	2	3.100	287	283.9	16.7	93
Mauritius	3	0.323	30.5	30.2	1.6	94
Zimbabwe	4	2.8	402	399	23.5	143
Zwaziland	5	0.180	25	24.7	1.5	138
Kenya	6	5.215	1 022	1 017	59.9	196
Botswana	7	0.189	45.7	45.6	2.7	163
Lesotho	8	0.081	54	53.9	3.2	666
Malawi	9	0.355	303	302	17.8	852
Uganda	1	10.474	645	644	37.9	1 360
United Republic of Tanzania	10	1.013	893	892	52.5	881
Ethiopia	12	1.006	1 337	1 336	78.6	1 329
Somalia	13	-	203	203	11.9	-[6]

1. See Table 5.
2. See Annex 4. Seychelles' places included an estimated 150 part-time enrolments, and Zambia's an estimated 1700.
3. Calculated as the reported populations aged 5-14 years in 1981 (Table 5) compounded at their 1981 annual population growth rate for 19 years see Table 1.
4. Column III minus Column II.
5. Column IV 17.
6. Cannot be calculated as Somalia had no special education places in 1981-83.

had a central special education section minimally adequate in terms of the number, and often the professional backgrounds, of its staff to ensure that its clients for special education were getting anywhere near the best possible service from the available funds. To do so, the sections needed to advise senior officers on the work and development of the services; monitor their performance and plan for their development (including any non-government special schools); support and advise teaching staff, and develop training programmes; maintain effective liaison with other sectors of the education service (particularly first-level administrators, teacher trainers and curriculum developers) and with other government and non-government agencies serving disabled people; monitor relevant developments in other countries; and carry out their inevitable additional clerical duties.

None of the sections were adequately staffed to provide these services. The smallest countries in the sub-region needed two full-time officers for this work, and the remainder more. Every country would benefit substantially, both educationally and financially, from developing and maintaining a central unit adequate for this purpose. The units merit priority for funding ahead of actual teaching positions.

Three important prerequisites for an effective section were put forward at various times by people from several countries: first that the section should be staffed by people with appropriate experience for their duties, secondly, their senior officer should have the status required to ensure that matters considered to merit the attention of their top management should not be held back by some intermediate administrator and, thirdly, the staff appointed to these sections, particularly to senior positions, should stay in them long enough to become effective administrators in this complex field.

One further important justification for these actions is that they are the prerequisite for developing the special education component in the subordinate ministry offices established in all except the small countries. Some of the largest countries will require this input at their intermediate regional offices as well as those at district level.

The positive outcome from appointing an officer with a full or part-time responsibility for special education in each subordinate office would be substantial: much improved liaison between district offices and their central ministry on matters concerning special education (in its broad context) and related services, thus ensuring a much more effective central office and better informed district and regional offices; a stronger and continued appreciation of the needs of handicapped children in all relevant aspects of the work of the district education administrators who decide many matters important for all the schools (special and otherwise) in their area; providing the head teachers and staff of special schools and units with regular, if sometimes infrequent, opportunities to review their work, including its specialist aspects, with an education officer with some relevant background and a continuing interest in their programme; encouraging and arranging school and district-level in-service training programmes for special education staff and for other teachers in respect of their pupils who have learning difficulties; encouraging working and recreational liaison between government and non-government special and ordinary schools; acting as the district office's spokesperson for co-operation with other agencies serving disabled persons, particularly health- and community-based support services, vocational training agencies, local body and special interest organizations; and acting in the same role in discussions with individual parents, politicians and other persons interested in special education.

Some interested education officers were known to be working in some of these areas. They assessed their efforts as useful but restricted by their limited time and knowledge and the absence of an official status for their work. One effective small programme was that being developed by the Zimcare Trust which was administering some twelve schools, two adult centres and a training workshop for mentally handicapped persons.

The Zimcare Training and Development Unit staff were involved in many of the activities just noted, in ways appropriate for their voluntary organization. Their strong contribution to the Trust's work reinforces the argument that this new administrative component would have a positive and considerable impact elsewhere, though it would certainly take some time to implement fully, particularly in the larger countries. Apart from the unavoidable cost, finding suitable appointees might seem a major hurdle. Fortunately, while specialist qualifications and teaching experience with handicapped children can be an advantage, people who lack them but who are otherwise suitable can be fully effective local special education administrators, given adequate orientation and in-service training, and specialist support from a central or regional office.

The key requirements for success in these positions are essentially those expected of all education officers, in terms of their proven professional and administrative competence as teachers and their display of the personal qualities needed for effective leadership, and for successful work with other professions and with a wide range of interested persons and groups. They should also have shown their interest in and willingness to learn about the education of children with special educational needs and the various social services that can help them. Those who are recruited from regular education will have one initial advantage in that close association with the ordinary-school administration is essential for effective work with special units and pupil-support programmes.

The orientation and subsequent in-service programmes for these officers would be particularly important. Those from smaller countries would certainly benefit if they could join courses in the larger countries. The short-term fellowships for study in the sub-region which the Unesco project was able to offer in 1982-83 provide a proven model for any assistance which might be available to help fund this study.

Because a national administrative network is the essential requirement for an efficient and effective special education programme, it is the one new element that deserves equal priority with additional school places for any funding which existing budgets can provide. As the pioneers (Kenya, the United Republic of Tanzania, and Zambia) had shown, once its central unit was staffed to a minimally effective level, a government could at least begin to tackle important educational issues such as those noted in earlier chapters. By 1983, their special education officers were working across a very wide field: assessment, curriculum, teacher-training, planning (with some liaison with external agencies), liaison with other ministries and organizations, equipment and so on, down a very long list. They were learnt as they went along. Without them, a new issue such as pre-vocational education which all the seminars noted for priority action would have had no continuing advocate. With them, it has at least been kept on an agenda for action. However, tasks such as developing pupil-support programmes or strengthening liaison between the unit and other teachers at ordinary schools, which require continuing local action, wait upon the provision of effective district-level special education administrators to generate the same kind of productive movement.

There were certainly people in most, if not all, of the associated countries by 1983 who were suitably equipped to work constructively as administrators in special education (full or part-time), or who could become so given some appropriate training and adequate government support.

The response to the network channels which the Unesco project had established by late 1983 showed the potential value of a sub-regional resource centre and clearinghouse and of international co-operation in this field, an assessment which developments during Phase 2 have confirmed. Some continued if modest support from one or more development agencies to sustain this interaction would contribute to a particularly profitable development for the sub-region. However, it would now also seem reasonable for the countries concerned to begin accepting some direct responsibility for these regional contacts in staff training, research and information sharing. If the exploratory meeting of university staff held in Zimbabwe in 1984 leads to the development, perhaps on a co-operative basis, of opportunities for advanced study in selected areas of education and to a consequent expansion of related research, the results could only be beneficial for the whole sub-region.

Relevant experience in countries with longer histories in providing special education suggests that governments can develop efficient national special education programmes with both public and private components. The ground rules for this partnership should be established sooner rather than later, so that the private sector is aware of the key national policies within which it can work productively.

One other way of improving the effectiveness of the existing special education services relates to the appointment and training of its senior staff. Given the very limited special education administrative frameworks then available, special-school head teachers as a group had substantially fewer restraints on their freedom of action than their counterparts in countries where groups such as parents, local citizens or authorities or a school staff had some recognized standing in policy making and management. All the special schools were, of course, required to respect whatever directions their particular government gave, but these were generally concerned more with matters such as teachers' salaries than teaching programmes. As an extra factor, the governing bodies of some non-government schools interested themselves directly in all aspects of their schools' work and gave their head teacher what directives and guidance they thought necessary. Within the limits of their particular responsibilities, the senior teachers of many associated units worked with similar and considerable autonomy.

During the first phase, its staff visited some special schools whose head teachers were clearly very effective professional leaders and administrators, and others whose head teachers who were equally clearly neither. Discussions with teachers and administrators showed awareness of the situation and that effective action, if possible, was often difficult, particularly concerning non-government schools.

The remedies are a matter for each country to decide. More developed countries face the same challenge in balancing the rights of teachers, private organizations (in the case of non-government schools) and pupils, and find them equally difficult. The associated countries face the additional burden that their special education services are very limited, and that when these are poorly used or misused, the handicapped children concerned are additionally disadvantaged.

One immediate step which would certainly help even before networks are established would be to provide even a short orientation course for newly-appointed head teachers of special schools, ordinary schools with special units and the teachers of those units; and some continuing in-service training for at least the special-school head teachers. The members of the four 1981/82 teaching seminars noted this as an important need. They saw valuable potential gains from group courses focusing on such topics as: (a) policies for and developments in special education generally, and in course members' particular fields; (b) policies and procedures for selecting pupils for admission and withdrawal, and for developing effective teaching programmes; (c) liaison with parents, neighbourhood schools, associated services and community groups; (d) developing and maintaining productive working relationships with and between their school staff; and (e) providing continuing in-service training programmes for their teaching and residential staff, and an adequate orientation for all new staff. The particular reference to training for residential staff reflects both its importance and its almost complete unavailability, a point raised by many other commentators.

The planned programme for the Kenya Institute for Special Education included a substantial and continuing emphasis on in-service training for practising teachers. If it were to explore some trial programmes for head teachers, it could provide some very useful information for other countries. Certainly the three-day programme for some ten special-school head teachers which the Zimbabwe Ministry of Education and Culture, the Zimcare Trust and the Unesco project held in Harare early in 1983 was considered to have been a useful beginning and was to be followed up with the same group.

Teachers working in special units run the risk of professional staleness through their limited contacts with specialist colleagues, especially if they work outside the larger cities. Their colleagues, the head teachers of the associated schools, could certainly benefit from some orientation on the work of the special unit based at their school, an indication of their responsibilities towards it and suggestions on how they could best help its teachers and pupils.

The proposals for establishing effective administration networks for special education services and developing a continuing in-service training programme for their staff are the two which would require significant new expenditure for full implementation but which are considered sufficiently important to warrant some initial funding from existing, limited special education budgets. They are given this priority because they are seen as manifestations of effective strategies for gaining a better present and future return on government and other funds invested in this social service.

Possible special education initiatives

The development of special education services across the sub-region up to 1983 followed essentially evolutionary patterns observed over the past century in those countries where they were pioneered. Four of these basic progressions have been:

Lifelong education, the extension of services from children of school age, once these were reasonably adequate, to include younger, then older persons of any;

Universal education, the progressive extension of these services to all persons needing them;

Effective education, the move from teaching programmes planned in terms of diagnosed disabilities towards those based primarily on identified teaching needs;

Integrated education, the evolution from services based entirely in special schools to the inclusion of special classes in regular schools, and thence to resource centre programmes and effective mainstreaming in regular classes.

Many other important innovations had accompanied these core progressions, for example, the application of modern technologies to special education and the recognition of parents as valuable teachers.

By 1983, the services in the sub-region were working essentially at base level on the first three of these sequences and not far beyond it, overall, on the fourth, though some countries had certainly made useful progress in developing special units and support programmes. However, some other innovations could be introduced rather earlier than in the original sequence, for instance, those relating to teaching programmes based on educational assessments and monitored to ensure maximum learning. Emphasis would remain on expanding services for children of school age.

These were reasonable predictions given the limited data available to most teachers and other interested persons. Provided necessary allowances are made for differing social, ethnic, economic and other relevant differences (which has not always been done) the associated countries can benefit from their predecessors' successes and failures as they move step by step through these progressions into new territory. It is quite possible now for a country that has relied entirely on special schools to move immediately to introduce over time a mix of schools, units and pupil support services planned to suit its own assessed needs and resources, drawing on information from both further and less developed countries. The same is true for moves to serve new target groups.

Thus the broad implications of the work over the past thirty years or more on developing and evaluating education programmes for handicapped children from birth to school age are transportable across all national boundaries.

Given the strong pressure to extend their services for children of school age, even the best informed planners and the most sympathetic governments will face some difficult choices when allocating what additional funds they have available from their own revenues or external sources for developing their special education programmes. The assumption here is that they will allocate a small fraction to new activities as their response to the related but not necessarily identical (and probably sometimes opposed) proposals from their professional advisers on the one hand and from client groups and their advocates on the other.

Lifelong education: Leaving aside the question of vocational training at any level, governments showed little interest in assisting disabled adults to pursue other studies through the formal education services unless they could do so by attending ordinary classes and obtain any necessary specialist help. However, some governments were considering supporting community groups, including societies for disabled people, which might offer continuing education services. There was considerably more interest, however, in developing appropriate education programmes for young children who have special teaching needs as a proven strategy for improving their skills.

The very limited services available by 1983 for educational assessment, parent and teacher guidance, and education for handicapped pre-school children were provided by a few psychologists, some special schools and units, two or three clinics and the Mauritian Child Health and Education Project. Between them, they touched only a tiny fraction of the children below school age who might have benefited from the services they offered. The interim 10 per cent target group for that help was between 2 and 3 million children (Unesco, 1983).

While any major expansion may not be possible, there is nevertheless now more than adequate evidence drawn from the sub-region itself to justify a high priority for establishing some well-planned and monitored exploratory programmes as soon as possible. They would explore what kind of educational services were most needed, which ways of providing them seemed the most effective in different areas, considering the resources involved, and what priorities could be suggested for their wider development.

The project's seminars and discussions generated several proposals which could be included in these studies:

Arranging for selected rural and urban special schools to extend their existing assessment programmes (essentially to select new entrants) and offer their district early assessments of young handicapped children, some continuing advice and possible support to their parents, any organizations helping them and any pre-school they might attend. Some schools were offering this kind of service in 1982/83, most of them with no extra staffing.

Selected special schools, and perhaps some units, could develop part-time teaching programmes for handicapped children living nearby. A cross-disabilities service would be encouraged.

Selected special schools and units could establish working links with nearby pre-school programmes and explore what both could learn from and offer each other.

Extending this concept in some larger centres where groups of special schools and units could work together, and with any other available and relevant services, to provide an assessment and support programme for the pre-schools in their area.

This approach could be paralleled by replicating the essential elements of the project's pre-school assessment and support services in selected a few centres.

Universal education: The quickest way to reduce the enormous unmet need for special education in the sub-region would be to limit the period for which special education was available to an individual child. One or two of the project's informants commented that it would not be unfair for a government to increase the number of winners in this lottery by reducing the size of the existing prizes. The result would be a possibly substantial increase in total enrolments in special schools or units, with more handicapped pupils receiving a basic education and fewer going on to second-level schooling, selected perhaps on a competitive basis as other pupils are. It would also probably place more pressure on regular schools.

There are precedents for limitations of this kind in other school systems which have had to ration their services through such policies as half-time attendance programmes. Its proponents saw it as a radical, probably contentious but sensible option available to developing countries which wanted to move as fast as they could towards providing universal education.

The other important implication of the concept of universal education is that the teaching offered must be reasonably suitable for particular people's needs. So far as special education planning was concerned, there was no obvious intention by 1983, except in Seychelles and Zambia, to move significantly beyond providing the four recognized categorical programmes, serving pupils with hearing, mental, physical or visual handicaps sufficiently serious to generate some special teaching needs. The few innovative programmes for more seriously mentally handicapped and other multi-handicapped children seemed likely to remain lonely pioneers. Programmes for children whose healthy development was impeded by emotional or social factors, or who had more specific speech, language or other learning difficulties were low priorities, if they were listed at all.

Effective education: Earlier chapters noted the common assessment across the sub-region that the level of teaching in the special education services generally could be raised considerably, to the advantage of many pupils. This is a challenge in all countries, but it is compounded in the sub-region by shortages of curriculum guides and materials, trained staff, and head teachers and administrators able to offer constructive guidance and leadership.

Worthwhile progress will require action on all these fronts and on others which may be relevant in particular countries or schools, for example, poor morale among teachers. However, the potential rewards from more effective teaching are considerable for the pupils, their teachers and eventually for national budgets.

This move towards more precise and productive skills teaching is exemplified in the Zimcare Trust programmes. It was also one of the objectives of the Kenya government and the DANIDA representatives as they planned the work of the Institute for Special Education in the areas of educational assessment and both pre-entry and continuing training for special education teachers. Progress in this complex field will inevitably be slow, as it is everywhere, but some investment in well-planned development projects must now be a requirement for any country which wants to see its valuable funds used to best effect. That goal will also require adequate administrative networks.

Integrated education: This covers all the educational implications of the proposition that the world in which other people live is the normal world for people who are disabled. Any proposal to educate a handicapped student apart from that normal world must therefore be demonstrably to the student's advantage, with the students involved as fully as possible in the relevant decisions and, if it is approved, it should be for a stated period. The term 'mainstreaming' was often used to describe the strategies through which closer integration in schooling could be achieved. Some limited it to educating children who had special teaching needs in regular classes, in some cases with specialist support. Others widened it to include placements in special units, often with the proviso that the children concerned should be involved as fully as possible in the work of the ordinary classes at their school.

The limited progress made from complete segregation in special schools towards closer integration has already been noted; at least three-quarters of all full-time special education enrolments in 1982/83 were at special schools.

The whole question of the preferable future balance between special schools, units and support programmes, and thus the integrative component in the special education offered, was always on the project's agenda and was discussed with many people who were responsible for planning or providing this social service, or who were interested in its development.

One general tendency noted was that people generally preferred the kind of services they were personally familiar with. A point which most people accepted, though often only after it had been mentioned for their consideration, was that their own country should aim to educate its handicapped children in an ordinary class in their neighbourhood school with any necessary support services, or else no further from that mainstream than was justified to meet a particular pupil's needs. However, this policy was regarded as realistic top priority for one country's planning in the next decade.

If that level of integration was still a very distant goal for most informants, they were more positive about units. They recognized that these at least allowed their pupils to attend an ordinary school, though in many cases with little or no classroom association with pupils in ordinary classes until existing practices changed. Units also reduced, although they could not eliminate, the need for pupils to live away from home. These were seen as positive moves towards closer integration but units based at first-level schools (as the great majority were) and providing an all-age service for handicapped pupils probably gave their older students fewer opportunities to mix with persons of their own age than most special schools could provide.

In terms of teaching programmes, most informants accepted that, given adequate professional and administrative support and some continuing but limited specialist support, units could cater satisfactorily for many pupils with physical or visual disabilities, once they were acceptably competent in any necessary special skills such as braille. They considered that units could also provide a useful though sometimes limited programme (compared with a good special school) for mild to moderately mentally handicapped pupils, though these children would probably be taught largely or entirely by their specialist teachers in their own classrooms.

At that time, special schools were seen as generally able to provide a better teaching programme than units for pupils who had a significant hearing loss or a more serious mental handicap, were multi-handicapped or for some other reason needed a teaching programme or some other service which was beyond the resources usually available at a typical one or two teacher-unit. These teaching advantages ascribed to special schools were seen as usually outweighing the opportunities for closer integration which a unit might offer.

Units were sometimes favoured because they might be providing a less expensive service, in terms of overall costs per pupil, than could residential special schools, whose boarding and travel costs were beginning to worry some administrators. However no firm figures were cited, and some people who made these comments did not seem to have recognized the need to strengthen the administrative and professional support available to many units, a move which would certainly raise their cost to some degree.

Four other perceived advantages of special schools were also mentioned. Most informants considered that a special school with a reasonably effective head teacher could offer teachers who had no specialist training or had just completed it much better professional support and guidance than could almost any unit. The schools could at the same time offer their staff opportunities to work at greater depth and more widely in their specialist field. Special schools with their larger enrolment rates were also better placed to acquire and maintain desirable specialist equipment.

The two other points were made by administrators. They commented that special schools with which private organizations were associated could often attract local and external funding, sometimes substantial, towards their capital or operating costs, or both. This support was not so readily available to school, unit or pupil support programmes which were part of a government school system. Also, given reasonably adequate head teachers, a special school demanded less of their time as administrators than did the equivalent number of units.

The most important factor favouring faster movement towards closer integration was the inevitably increasing impact on informed public opinion and government planning of the growing body of people with higher-level qualifications in special education and often some personal knowledge of services in other countries.

Although the members of this growing group will certainly not agree on all the issues that will confront them, the contacts made with many of them up to 1983 suggested quite strongly that they generally saw action towards closer integration as one of the criteria relevant for all planning decisions for the education of handicapped children. They seemed likely to gain increasing public support for this view as more parents, and particularly those with some political status, learnt that there are respectable alternatives to segregated special schools, and particularly to residential schools. At their best these cannot provide the optimal social education needed to help their pupils to prepare for their fullest and most rewarding possible participation as adults in the ordinary world.

There will be the risk of course that additional schools, units or support services could be set up without the administrative guidance and support which has already been identified as important. At least up to 1983, very few of the project's informants, apart from the staff of central government special education sections, gave this as one of their top or middle-ranking priorities for action.

To the extent that the ideas current in 1981/83 remain relevant, and that the structure of the existing and any new services influences the education that pupils actually receive, progress towards closer integration could be influenced by the following:

The continuing existence of the special schools functioning in 1983, which will remain geographically isolated from ordinary schools, though their programmes will change.

More and growing emphasis on using special units where these are seen as acceptably effective, which will be determined partly by the administrative support they receive.

The likely establishment of some new special schools where and while these are seen as being on balance still preferable to units or support services to meet the needs of particular groups of handicapped pupils. On the 1981-83 data, these would comprise principally children with a more serious hearing or mental handicap. Some schools may be established as a resource facility for a cluster of units or as the only way to serve some thinly populated rural areas.

More attention will be given to pupil support services, initially to serve 'slow learning' pupils, and then more widely through a range of exploratory projects.

Increasing use of planned research, including exploratory projects in special education generally.

Closer planning links between governments and non-government schools, where these are functioning.

These trends can be linked to those noted earlier concerning lifelong, universal and more effective education.

This brief look ahead is not in any way a formal blueprint for developing the special education services. It is essentially a projection based on ideas and comments from people actually involved with special education in 1981-83. One very important feature of the projection is that while our informants expected that only limited resources would be available for developing special education, their approach was essentially very positive. For example, more of them than might have been expected envisaged an increasing, though still small, funding for relevant research, including both simple and more complex explanatory projects which could be developed within approved policies to assess the potential value of new approaches.

One attractive area for research is an extension of the Zambian proposal to establish special schools for deaf children, each school acting as a resource centre for a cluster of units. Other countries, and Zambia itself in respect of other categories of special education, had large districts served only by a special school. When an additional service is to be provided in a district already served by one special school, most if not all of the associated countries could now if they wished establish units (with any necessary hostels) instead of setting up a second segregated school. If the district is already served by one or more units but lacks the 'resource centre' element, an alternative to establishing such a school would be to extend and upgrade one or more of the units to provide this service. A unit can have substantially more than the one or two teachers typical in the sub-region and provide a range of teaching and support services for a large district while continuing to function successfully as an integral part of an ordinary school.

Such a cluster of special school plus units, or a 'resource unit' plus ordinary units, could explore and evaluate ways in which they could work together to improve their programmes and efficiency, including the following:

The units could perhaps cater more for younger pupils, with their resource base providing more for older pupils needing the pre-vocational education which an ordinary unit could not always offer.

The resource base could provide special short courses on particular topics for pupils from the units and cater for pupils who for some reason needed a teaching programme which a unit could not offer.

The resource base could offer professional support and help with equipment and teaching materials generally, as well as opportunities for staff training.

The special school (if there were one) could enrol pupils who were not disabled, a strategy for closer integration used successfully outside the sub-region, and seek as many useful interchanges as possible with nearby ordinary schools.

As a further step, the resource base and the units could be given one additional teacher each to develop a support service for children in ordinary schools who had special teaching needs, and for their teachers and parents. This is the service which was envisaged for the proposed Ethiopian and Malawi unit-based programmes for mentally-handicapped children.

Given limited extra staffing, this support service could be extended to serve pre-school children and their families.

The list could be extended further. Given adequate planning, support from the local education administrators and sound evaluation, a few clusters covering different disabilities and serving different kinds of districts could provide within a few years a great deal of information on ways of moving closer towards the four goals- lifelong, universal, effective and integrated education - at the minimum cost, and on the pitfalls to be avoided. Given that necessary administrative support, they could also explore ways of linking non-government special schools with units at government schools, producing effective teaching clusters.

The second exploratory project, which could be associated with or separate from the first, would relate to developments already under way in Kenya and Zambia as part of their extensive upgrading of training programmes for special education teachers. New trainees will now receive a basic training in assessing (and providing appropriate teaching programmes) educational difficulties associated with all the major areas of special education: hearing, mental, physical and visual. They will then move on to study a particular area in more depth.

As these teachers move into the field and their older colleagues gain a similar background through in-service training, the need to channel special education through its established single-category schools and units will be reduced. Given an appropriate balance of specializations on its staff and links with the relevant resource bases, a unit or special school could enrol children with different handicaps. Units and schools providing a support programme could certainly broaden it to cater for the widest possible spectrum of handicapped pre-school children and pupils in regular schools. The district administration would need to ensure that each special school or unit maintained an agreed balance between its core focus and its complementary role as the special education centre for its area and to check that teachers were not overloaded, particularly in units, and help them to establish and maintain good working links with health and other services for disabled children.

Once again there would be many possibilities for productive exploratory projects using this approach within the work of all the special education services, and also in regular schools where their potential contribution could be considerable, that is, by enrolling children with less serious disabilities. The pressure on special schools would be reduced to the degree that support teachers could help some of the pupils admitted partly or largely for social reasons to return to their own home community, thereby enrolling more children with more serious educational handicaps.

Vocational training

The limited information which the project received on expectations for vocational training was not so positive. As a generalization, providing these services seemed generally to have a lower priority for governments than did special education. Certainly, many and perhaps most of the services known to the project had been established and were being run by non-government organizations, sometimes with considerable external funding, though some were also receiving government support.

One factor which might encourage governments to develop the elements of national vocational rehabilitation services was the limited but growing ILO work in this field, including its planning for the African Rehabilitation Institute (formally established in 1985), which, with its regional satellites, will contribute towards planning, staff training, information sharing and research in this neglected field.

One constructive response to the largely unmet need for this service which ILO was encouraging was to serve disabled people living in rural areas by establishing trade and skill-training courses at third-level educational institutions such as Kenya's rural institutes of technology. A second approach, seen as a necessary second best, was the establishment of vocational training programmes, and sometimes sheltered workshops, at or associated with some special schools. They offered an important service but, unlike the training programme at Karatina Special School, they kept young adults in the social environment of a school for children. This could be avoided where governments or other funding groups were prepared to follow the example set by Kenya's two special technical vocational schools which gave selected deaf trainees the opportunity to gain a regular trade qualification.

However, a desirable goal must include enabling disabled people to participate as fully as possible with any necessary specialist help in the regular vocational training programmes offered by the universities, polytechnics and other regular vocational training facilities. Separate special courses should be provided only when this segregation is justified.

A new opportunity

The saddest element in the total scene in 1983 was that so many disabled young people and adults were not served by existing education and vocational training programmes, and that even if an interim target much lower than the 10 per cent used here were adopted, the chances of these programmes expanding to reach that target clientele in the foreseeable future seemed remote for nearly all the associated countries.

The one potentially important factor which this pessimistic forecast ignored was the evidence then beginning to accumulate of the potential and positive contribution of the pioneer community-based rehabilitation programmes, which aimed to serve disabled people primarily in their own community but which could differ quite considerably in their administration and their links with and access to health, education and other social services.

This is not the place to review developments in what is now a growing and complex field, which is generating its own substantial literature (see, for example, the bibliography in Miles' (1985) critique of WHO schemes based on his work in Pakistan). The points to be made here will relate to all these services whether they follow the broad WHO model or some alternative which comes within the definition just given. If they continue to develop as they appear to have done since 1983, they will come to be recognized, at different times in different places, as an important and accepted social service in their own right. If their relationships with the established education and vocational rehabilitation services remain as tenuous as they were for most of the pioneering projects, however, there will be clear professional and administrative separations.

On the educational side, the special education services would be staffed mainly by teachers, with a probably increasing proportion specialist-trained; funded and administered wholly or principally through ministries of education; and serving mostly children of school age or a little older, with a small but growing enrolment of pre-school children but with few older students. The community-based services would comprise organizations working across or in some parts of the broad field of rehabilitating disabled children and adults, including their education and their social integration. They would draw their government funding and professional support principally through ministries of health, with inputs from other rehabilitation services, including education, where these were available and seen as relevant by individual organizations. Most of their actual field staff would have had a much shorter training than that considered appropriate for special education teachers.

Remembering their availability to support local pre-school education groups, these workers would in fact be those who would provide or support what educational programmes will be available for most pre-school handicapped children, in whom they would have a particular interest. They would also work more closely with the families of their clients than would be possible for teachers in special education services and they would work with many volunteer instructors. Their potential contribution to reducing the number of children needing special education due to untreated physical or sensory impairment must be considerable.

An essentially similar situation would develop for vocational training programmes, with various third-level education services offering a fortunate minority access to full professional or trade qualifications and as well as shorter, less advanced courses, as in Kenya's rural institutes. Some special schools and independent training organizations would prepare another minority, including quite severely mentally handicapped trainees, for sheltered or open employment.

So far as the education services were concerned, this separation as it existed up to the 1983 seemed to reflect the fact that in at least three countries the initiative for establishing pioneer community-based rehabilitation services had come from health-related organizations following or testing the WHO model.

If this position were to continue, the result would inevitably be the emergence of a three-tier situation, where a small minority of handicapped children would receive their education in a special school, unit or support programme. A second minority, which might in time exceed the first, would receive assistance from a community-based agency. Its programme could be particularly helpful for younger children, but its work for any older groups would not usually match the teaching programme which an appropriate regular or special education placement could provide. As a result, its clients would be excluded from those occupations for which some formal schooling or examination success was required. The third group would receive none of these services, and its members would fare as well, or as poorly, as they have always done.

The one additional step envisaged here, which some countries may now have taken, is for a government to adopt continuing partnerships with concerned non-government groups as an integral part of its broad social policies for serving its disabled citizens. If this strategy is to succeed in the sub-region, it will need a strong and continuing political commitment behind it to persuade and help the government ministries concerned to develop the liaison and the interrelated policies which had largely eluded them up to 1983 and to set up the administrative networks essential for the special education services. This new approach would need time to grow soundly on the basis of co-operative planning, well-tested exploratory projects and local initiatives within agreed guidelines.

The long-term possibilities for co-operative work in this broad field would be substantial. The few projects given here as possible elements in a progression along that path merely illustrate what might emerge:

Effective procedures for exchanging useful information and for developing mutually supportive or joint programmes involving education, health, vocational training, community-based and other clearly relevant services. This would involve both national and district-level machinery set up on a permanent basis.

Special education services acting as resource centres for community rehabilitation services (including vocational training programmes) on all the educational components of their work to which special school, unit or support service staff could usefully contribute. These should certainly include assessments, programme planning and evaluation, study visits and local staff training, and help with equipment.

Services assisting special education services reciprocally in all these areas according to their staffs' skills.

These services also supporting special education services as their local informants and representatives, and through their own early identification and intervention programmes, their work with local pre-school groups and their services for older children not able to attend school and for disabled adults.

Vocational services interacting similarly with community rehabilitation and special education services.

Community service and vocational training staff contributing to national initial and continuing training for special education staff (and vice versa).

Joint action in developing and using assessment and teaching materials for use by any interested service.

One further link would mark important progress in co-operation between teachers and related services. The president of the International League of Societies for Persons with Mental Handicaps discussed strategies which developing countries might use to help as many mentally handicapped children as possible to receive an appropriate education at their neighbourhood school (Mittler, 1984) and suggested that one source of helpful support for teachers could be the staff of local health centres or community rehabilitation services. Provided the staff concerned could match their advice to the realities of a class teacher's working day and that the teachers linked them with any special education support personnel who might also be involved, this could be a major asset. It would have the real advantage of coming from colleagues who would know the family circumstances of many, if not all, of the children concerned. Such links between groups which have often been hampered by barriers of professional self-sufficiency; training differentials would introduce valuable grassroots partnerships to assist emotionally handicapped children.

As countries developed this broad strategy, they would find many other ways in which it could be extended, with vocational training agencies also fully involved, to the clear benefit of many young people and adults with special educational needs, who would otherwise have received no benefit from their country's special education services. However, the strategy would in no way diminish the need for these services both to increase their own enrolments and to extend their direct involvement in such important areas as pre-school education, pupil support programmes, life-skills education and vocational training programmes.

At the same time, however, the strategy would give special education staff stronger direct and indirect links with the outside world and with families. It would challenge them to work in new ways with colleagues in related services, which could only be to their professional advantage and their clients' benefit. Given the informed administrative support and the leadership which they will need if they are to advance, special education services should then be able to give their governments a better return for the funds invested in them. This, in its turn, would encourage external development agencies and groups to maintain their very important support for these services.

The final point widens the focus beyond individual countries to include their sub-region and the wider world. With the unmet need for special education already very great and still increasing, the way ahead must still seem endless and uncertain for the many individuals and groups in the sub-region who serve or care for their country's handicapped young people. However, they are often professionally isolated. They usually know little about progress elsewhere in their own country and less about developments beyond it.

This study has noted in several places how little each of the associated countries knew about ideas and developments elsewhere in the sub-region which were directly relevant to its present and planned services. It has also recorded the very limited channels which were then available for any continuing exchanges of information on these matters including, for example, those discussed in this chapter. Comments from many informants and the positive response to the project's international seminars, its programme of study visits and its pioneer bulletin pointed up very clearly the general desire for and the potential value of greater information-sharing across the whole field of special education.

The hard reality is, and will remain, that it takes money to purchase or to prepare and then to transmit information, and that funds for this particular activity will almost certainly remain very limited. The position within countries should improve for those which develop their administrative networks and local in-service training and, while this will be essentially each government's responsibility, there will be opportunities where development agencies could contribute usefully to establishing or improving national information networks. However, the important links between countries which the project helped to establish will remain at risk even if some countries are prepared to contribute to their funding unless some external assistance continues in the foreseeable future.

The panel which assessed the project's work in 1981-83 saw its assistance in this field as particularly important, and made a strong recommendation that it be continued during the second phase (1984-85), though at a reduced level.

Unesco was particularly well placed to contribute substantially to the early stage of building this network with its sub-regional project actively collecting and sharing information as part of its agreed programme towards developing a resource-centre service for the associated countries. However, there was clearly room for other agencies to contribute to the total enterprise, as some did.

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Appendix 1

The origin, objectives and 1981-83 programme of the Unesco sub-regional project for special education in eastern and southern Africa

Origin

Unesco became increasingly aware during the 1970s of the very limited progress which developing countries generally had been able to make in providing appropriate education for handicapped young people who could neither make reasonable progress given the programmes offered in ordinary school classes nor obtain special education. It reviewed this matter with some interested countries and, in 1978, approached SIDA, inviting its co-operation in supporting an exploratory project which would assist the English-using countries in eastern and southern Africa to develop their special education services. The project was established in December 1980, initially for two years, with a professional staff of three persons based in Nairobi, Kenya. It was later extended to July 1983, after which it continued with one specialist officer until April 1986.

Objectives

The broad objectives set for the project were to assist its associated countries to:

1. Plan the development of their special education services according to their own priorities and within the limits of their resources.
2. Prepare suitable teaching programmes and equipment.
3. Strengthen the liaison between their special education services and the related health and welfare services.

Activities

The project worked towards these objectives through six inter-related activities. They were:

1. Five-regional seminars focusing respectively on:
   - (a) policies for and the administration of special education;
   - (b) educating visually handicapped children;
   - (c) educating hearing handicapped children;

(d) and (e) educating mentally handicapped children.
Most of the associated countries attended each of the first three seminars. The last topic was given two seminars because of the particular interest it engendered in the associated countries and the very limited provisions for relevant specialist training in the sub-region. One of these seminars catered for six and one for seven countries.

2. Providing fellowships for training and study visits for selected teachers, teacher trainers and administrators with responsibilities related to special education.
3. Assisting governments when and as requested in planning the development of their special education and related health, vocational and employment services.
4. Gathering information on the existing special education services in the sub-region, and on plans for their development.
5. Developing information networks on special education services linking governments and institutions in this sub-region.
6. Co-operating with other United Nations agencies and with national and non-governmental development groups which were also contributing towards the development of special education and related services in the sub-region. This activity was identified as important soon after the project started.

The data on which this publication is based were gathered primarily between December 1980 and July 1983; some supplementary material was made available by the project staff up to mid 1985.

Appendix 2

General classification of impairments, disabilities and handicaps

The WHO definitions of these three terms as given in its 'International Classification of Impairments, Disabilities and Handicaps' brought some order into their use, but as its definitions were developed primarily within the conceptual framework of health services they do not necessarily meet so neatly the needs of those working in an educational context. They are quoted here as one important basis for the terminology followed in this publication, though not necessarily in the five contributed chapters. The definitions are:

Impairment:	Any loss or abnormality of psychological, physiological or anatomical structure of function.
Disability:	Any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.
Handicap:	A disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual.

Under this classification all disabled persons have an impairment, and all handicapped persons have an impairment or a disability.

The word 'handicap' is commonly used in educational circles in its ordinary dictionary meaning of a hindrance or disadvantage, without implications as to its roots or to causative factors. The general usage is reflected in the term 'educationally handicapped' used in places in this publication.

The WHO classification is important in its implication that it may be, and often is, possible to limit the disability resulting from an identified impairment and to limit or forestall the handicap resulting from a disability. This is a necessary orientation for all persons involved in the education of handicapped children.

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